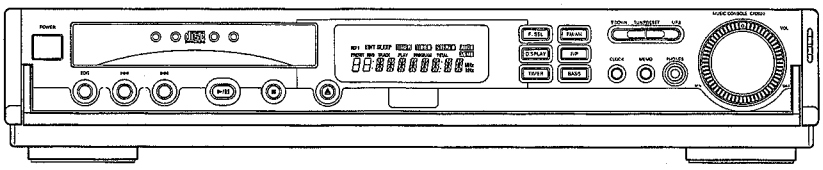
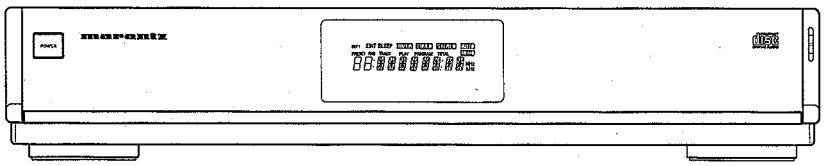
Service Manual

75 CR2020/2A/2B/2M
CR2020K,F,U
Music Console





COMPACT disc DIGITAL AUDIO

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Please use this service manual with referring to the user guide (D.F.U) without fail.
修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

marantz®

model CR2020

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PCS 98 641

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

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Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

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PHONE : 630 - 307 - 3100
FAX : 630 - 307 - 2687

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SINGAPORE

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23, LORONG 8, TOA PAYOH,
SINGAPORE 319257.
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FAX : +65 3564047

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard N0. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

1. TECHNICAL SPECIFICATIONS

FM TUNER SECTION

Frequency range ..... 87.5 – 108 MHz
Sensitivity (U,K version) ..... 19.2 dBf
Sensitivity DIN (Mono/Stereo)(/2A/2B/2M) ..... 3.0/25 µV
S/N (Mono/Stereo) ..... 75/65 dB
T.H.D. ..... 0.3/0.6 %
Selectivity at 98 MHz ..... 65 dB

MW TUNER SECTION

Frequency range
U version ..... 520 – 1710 kHz
K version ..... 531 – 1602/520 – 1710 kHz
/2A/2B/2M version ..... 531 – 1602 kHz
Sensitivity (U,K version) ..... 400 µV/m
Sensitivity DIN (S/N 20 dB 30% Mod.999 kHz)
(/2A/2B/2M version) ..... 600 µV
S/N ..... 50 dB

LW TUNER SECTION(/2A/2B/2M)

Frequency range ..... 152 – 282 kHz
Sensitivity DIN (S/N 20 dB 30% Mod.207 kHz) ..... 1800 µV

AMPLIFIER SECTION

Power output at 6Ω ..... 25 W
T.H.D. at 6Ω rated RMS output ..... 0.06 %
Input Sensitivity:AUX, TAPE, MD ..... 180 mV/47 kΩ
S/N :AUX, TAPE, MD ..... 80 dB

CD PLAYER SECTION

Frequency range ..... 20 Hz – 20 kHz
Dynamic range ..... 85 dB
S/N ..... 85 dB
Channel Separation ..... 85 dB
T.H.D. ..... 0.015 %

POWER REQUIREMENTS
U version ..... 120 V AC, 60 Hz
K version ..... 115/220 – 230 V AC, 50/60 Hz
/2A/2B/2M version ..... 230 V AC, 50 Hz

DIMENSIONS
Width ..... 422 mm
Height ..... 76 mm
Depth ..... 314 mm
WEIGHT ..... 6.2 kg

SUPPLIED ACCESSORIES

Remote controller (RC2020CR) × 1
AAA (R03)Battery × 2
FM antenna × 1
AM loop antenna × 1

Specifications subject to change without prior notice.

FM部
受信周波数範囲 ..... 76.0～90MHz
実用感度 16.8dBf/1.9µV
S/N(モノラル/ステレオ) 78/70dBf
T.H.D(モノラル/ステレオ) 0.3/0.6%

AM部
受信周波数範囲 ..... 531～1602kHz
実用感度 300µV/m
S/N 50dB

アンプ部
定格出力(40Hz～20kHz T.H.D 0.6%) ..... 25W+25W(6Ω)
入力感度 AUX,TAPE/MD 180mV/47kΩ
S/N比 AUX,TAPE/MD 80dB

CD部
チャンネル 2チャンネル
周波数特性 ..... 20～20,000Hz±0.5dB
S/N比 ..... 85dB(1000Hz)
T.H.D ..... 0.015%(1000Hz)
出力レベル ..... 2V RMS
光出力(角型光コネクタ) ..... -19dBm

その他
電源電圧 ..... AC 100V,50/60Hz
消費電力(電気用品取締法) 50W
最大外形寸法
幅 422mm
高さ 76mm
奥行き 314mm
質量 6.2kg

付属品
リモコン送信機 1
単四乾電池 2
FM T型アンテナ 1
AM ループアンテナ 1
スピーカーケーブル 2

本機の規格および外観は改良のため予告なく変更することがありますのでご了承ください。

CLASS 1 LASER PRODUCT

PCS 98 643

4. IC DATA

Q221:SAA7372

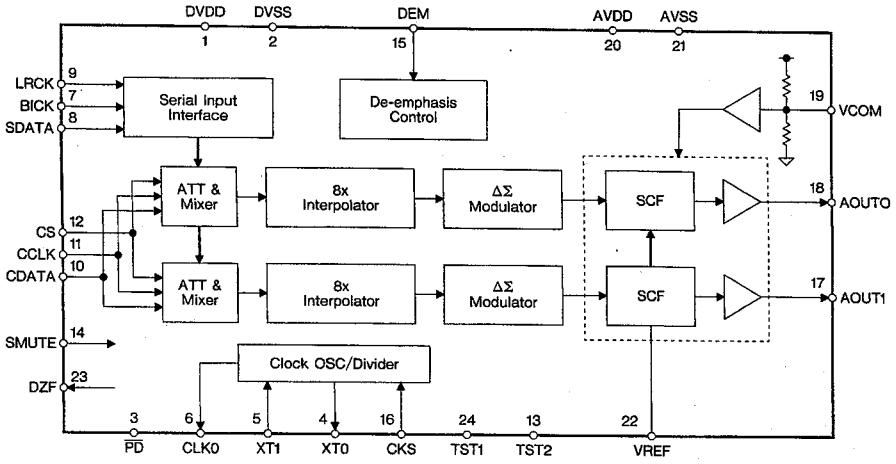
SYMBOL	PIN	DESCRIPTION
V_{SSA1}	1(1)	analog ground 1
V_{DDA1}	2(1)	analog supply voltage 1
D1	3	unipolar current input (central diode signal input)
D2	4	unipolar current input (central diode signal input)
D3	5	unipolar current input (central diode signal input)
V_{RL}	6	reference voltage input for ADC
D4	7	unipolar current input (central diode signal input)
R1	8	unipolar current input (satellite diode signal input)
R2	9	unipolar current input (satellite diode signal input)
I_{refT}	10	current reference output for ADC calibration
V_{RH}	11	reference voltage output from ADC
V_{SSA2}	12(1)	analog ground 2
SELPLL	13	selects whether internal clock multiplier PLL is used
ISLICE	14	current feedback output from data slicer
HFIN	15	comparator signal input
V_{SSA3}	16(1)	analog ground 3
HFREF	17	comparator common mode input
I_{ref}	18	reference current output pin (nominally 0.5V_{DD})
V_{DDA2}	19(1)	analog supply voltage 2
TEST1	20	test control input 1; this pin should be tied LOW
CRIN	21	crystal/resonator input
CROUT	22	crystal/resonator output
TEST2	23	test control input 2; this pin should be tied LOW
CL16	24	16.9344 MHz system clock output
CL11	25	11.2896 or 5.6448 MHz clock output (3-state)
RA	26	radial actuator output
FO	27	focus actuator output
SL	28	sledge control output
TEST3	29	test control input 3; this pin should be tied LOW
$V_{DDD1(P)}$	30(1)	digital supply voltage 1 for periphery
DOBM	31	bi-phase mark output (externally buffered; 3-state)
V_{SSD1}	32(1)	digital ground 1
MOTO1	33	motor output 1; versatile (3-state)
MOTO2	34	motor output 2; versatile (3-state)
SBSY	35	subcode block sync output (3-state)
SFSY	36	subcode frame sync output (3-state)
RCK	37	subcode clock input
SUB	38	P-to-W subcode output bits (3-state)
V_{SSD2}	39(1)	digital ground 2
V5	40	versatile output pin 5

SYMBOL	PIN	DESCRIPTION
V4	41	versatile output pin 4
V3	42	versatile output pin 3 (open-drain)
KILL	43	kill output (programmable; open-drain)
EF	44	C2 error flag; output only defined in CD ROM modes and 1f_s modes (3-state)
DATA	45	serial data output (3-state)
WCLK	46	word clock output (3-state)
$V_{DDD2(P)}$	47(1)	digital supply voltage 2 for periphery
SCLK	48	serial bit clock output (3-state)
V_{SSD3}	49(1)	digital ground 3
CL4	50	4.2336 MHz microcontroller clock output
SDA	51	microcontroller interface data I/O line (open-drain output)
SCL	52	microcontroller interface clock line input
RAB	53	microcontroller interface R/$\overline{W}$ and load control line input (4-wire bus mode)
SILD	54	microcontroller interface R/$\overline{W}$ and load control line input (4-wire-bus mode)
n.c.	55	not connected
V_{SSD4}	56(1)	digital ground 4
$\overline{RESET}$	57	power-on reset input (active LOW)
STATUS	58	servo interrupt request line/decoder status register output (open-drain)
$V_{DDD3(C)}$	59(1)	digital supply voltage 3 for core
C2FAIL	60	indication of correction failure output (open-drain)
CFLG	61	correction flag output (open-drain)
V1	62	versatile input pin 1
V2	63	versatile input pin 2
LDON	64	laser drive on output (open-drain)

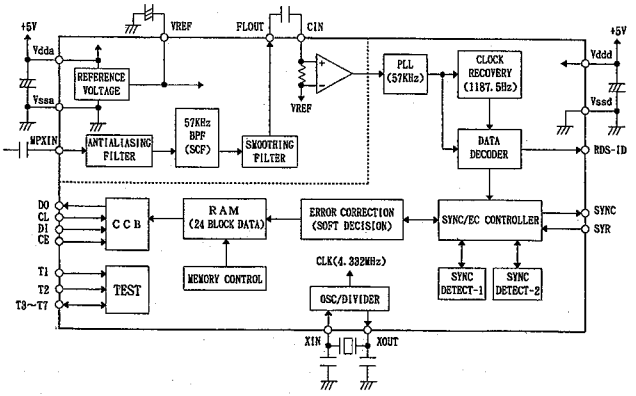
Note

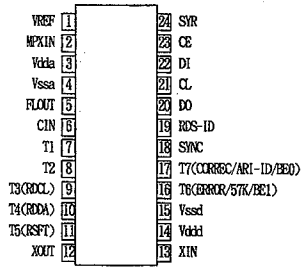
1. All supply pins must be connected to the same external power supply voltage.

Q401:AK4311A

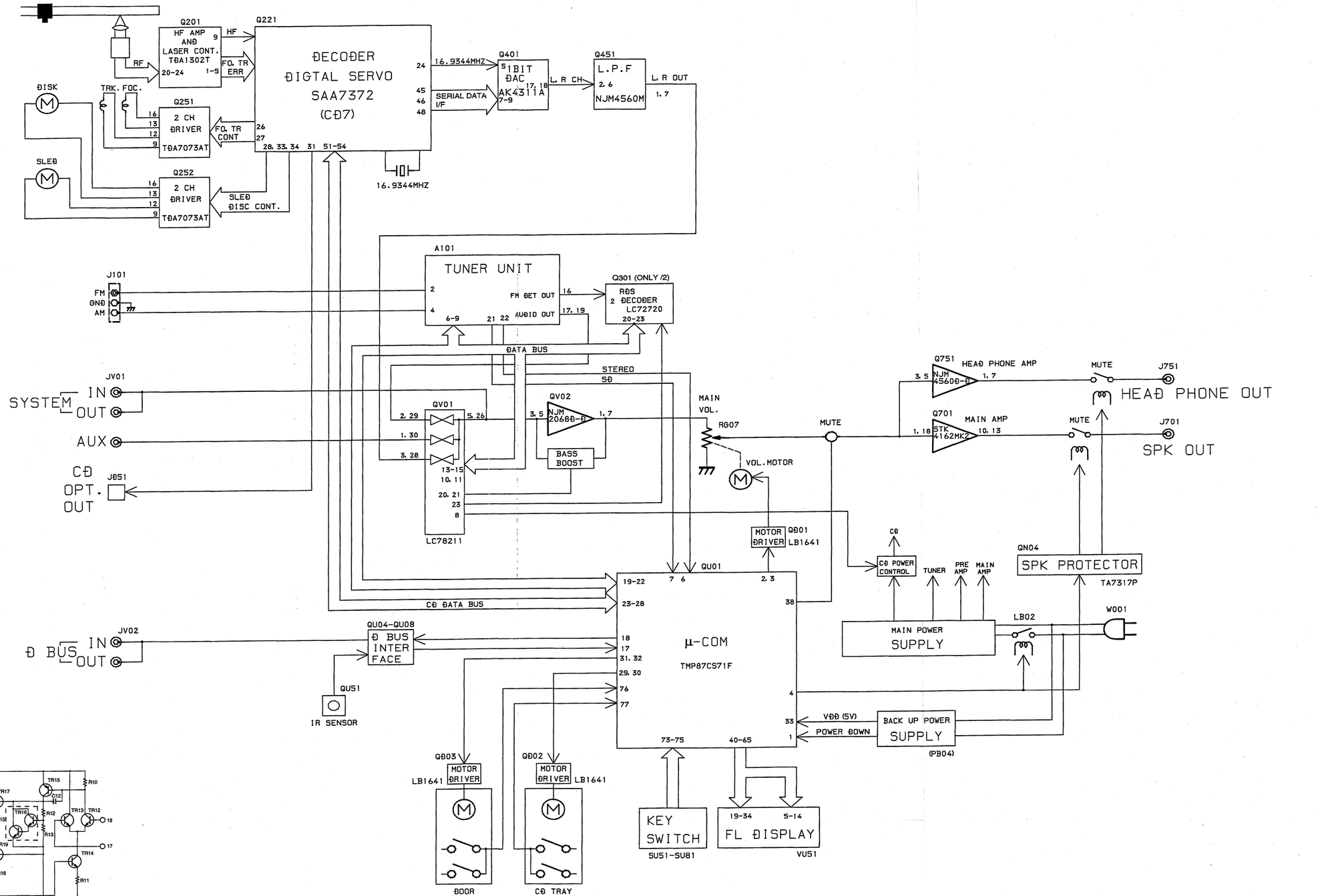


Q301:LC72720





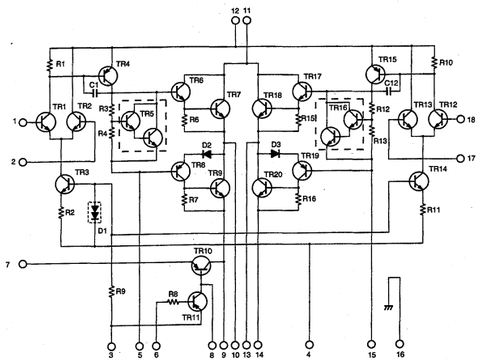
3. BLOCK DIAGRAM



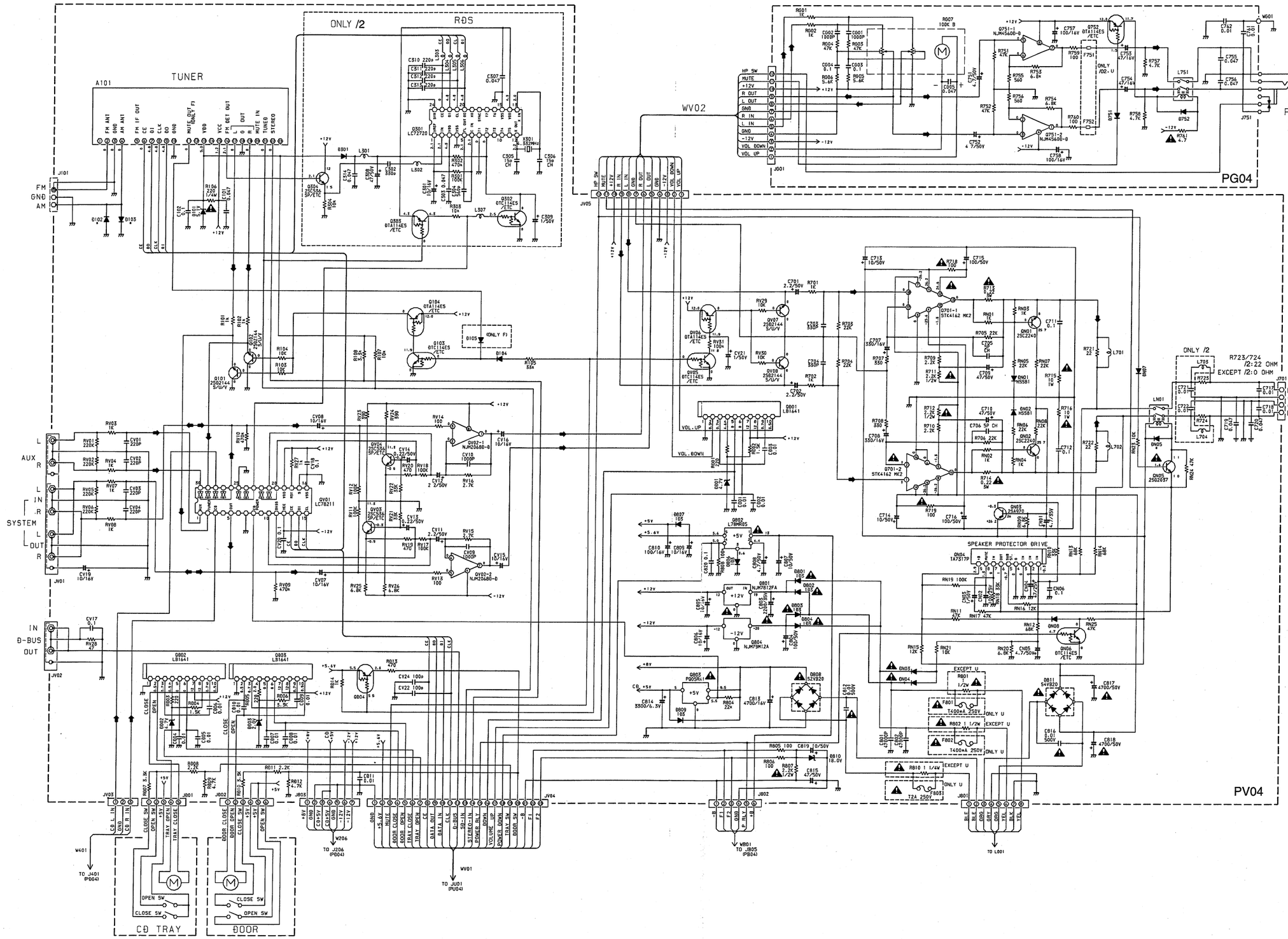
Q201:TDA1302T

SYMBOL	PIN	DESCRIPTION
O4	1	output of diode current amplifier 4
O6	2	output of diode current amplifier 6
O3	3	output of diode current amplifier 3
O1	4	output of diode current amplifier 1
O5	5	output of diode current amplifier 5
O2	6	output of diode current amplifier 2
LDON	7	control pin for switching the laser ON and OFF
V_{DDL}	8	laser supply voltage
RFE	9	equalized output voltage of sum signal of amplifier 1 to 4
RF	10	unequalized output
HG	11	control pin for gain switch
LS	12	control pin for speed switch
CL	13	external capacitor
ADJ	14	reference input normally connected to ground via a resistor
GND	15	0 V supply; substrate connection (ground)
LO	16	current output to the laser diode
MI	17	laser monitor diode input
V_{DD}	18	amplifier supply voltage
I2	19	photo detector input 2 (central)
I5	20	photo detector input 5 (satellite)
I1	21	photo detector input 1 (central)
I3	22	photo detector input 3 (central)
I6	23	photo detector input 6 (satellite)
I4	24	photo detector input 4 (central)

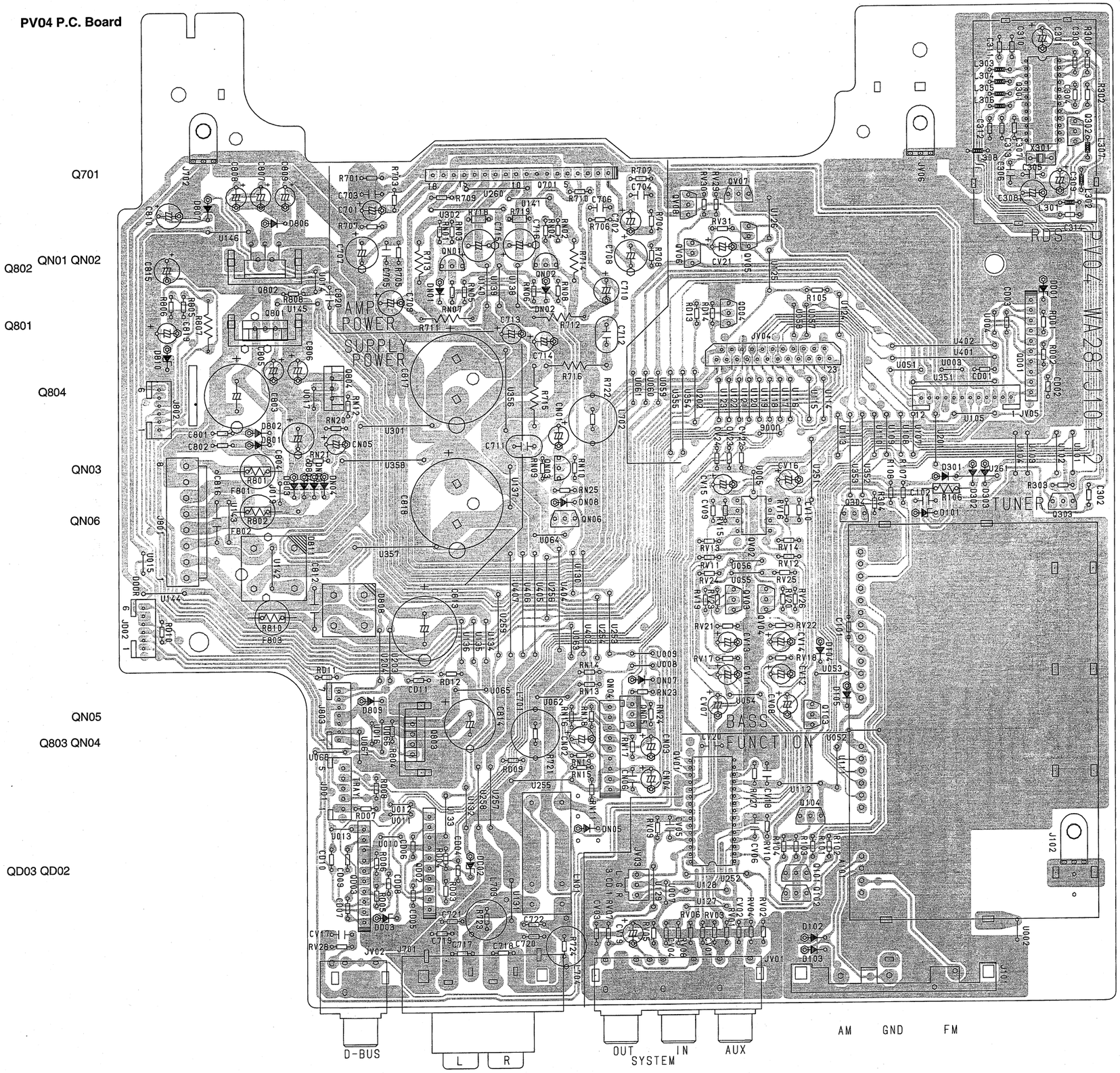
Q701:STK4162MKII



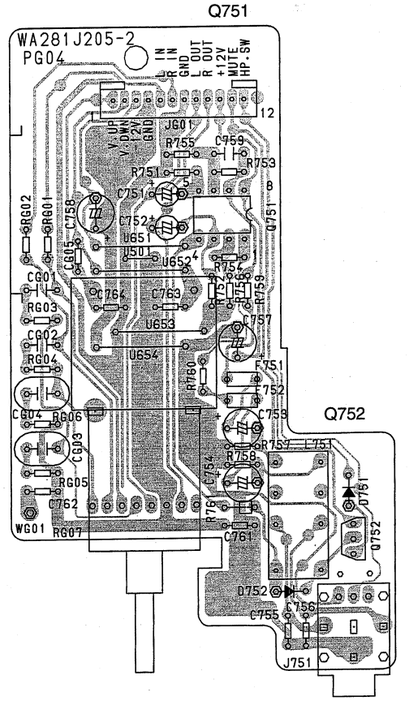
4. SCHEMATIC DIAGRAM AND PARTS LOCATION (Pattern Side)

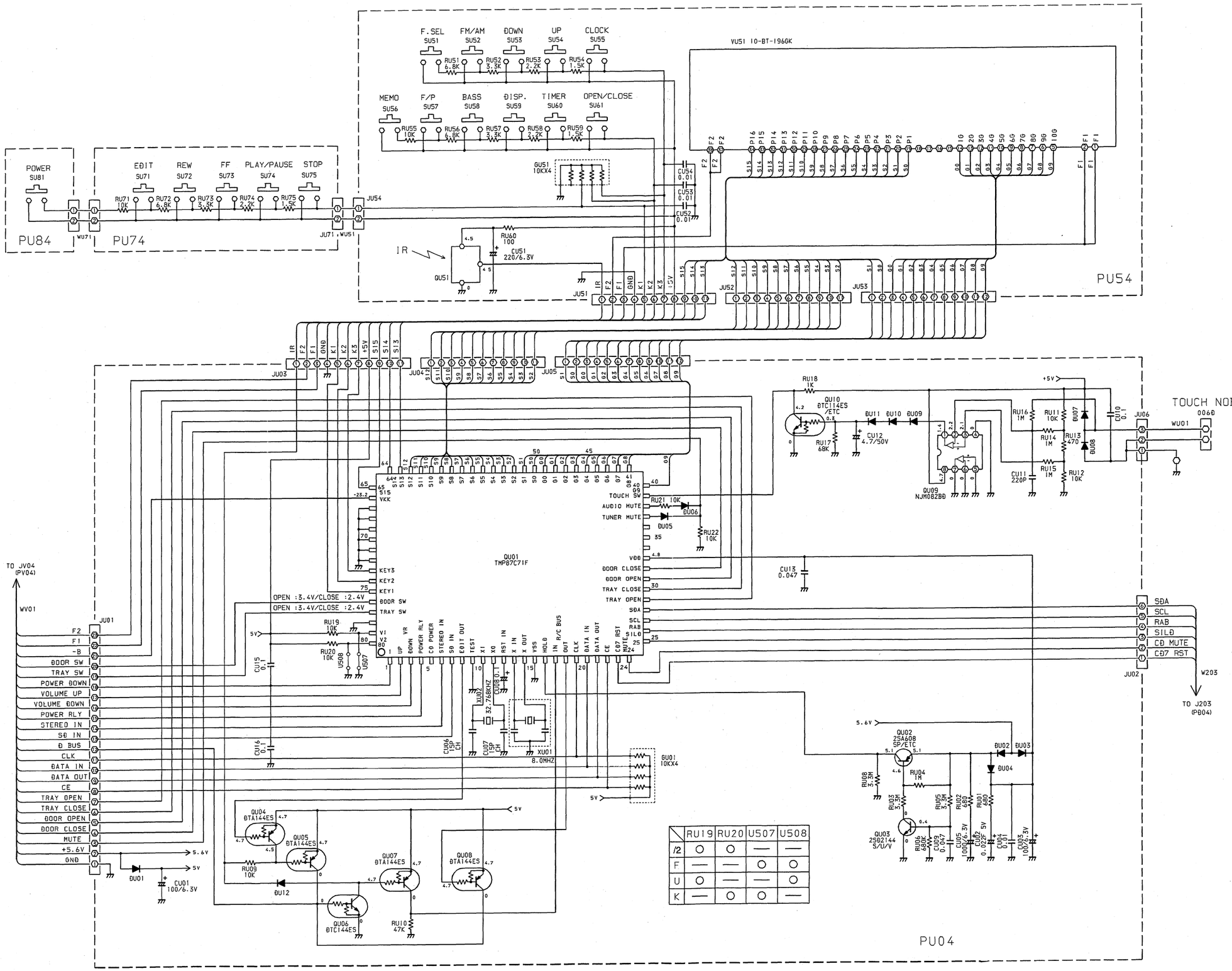


PV04 P.C. Board



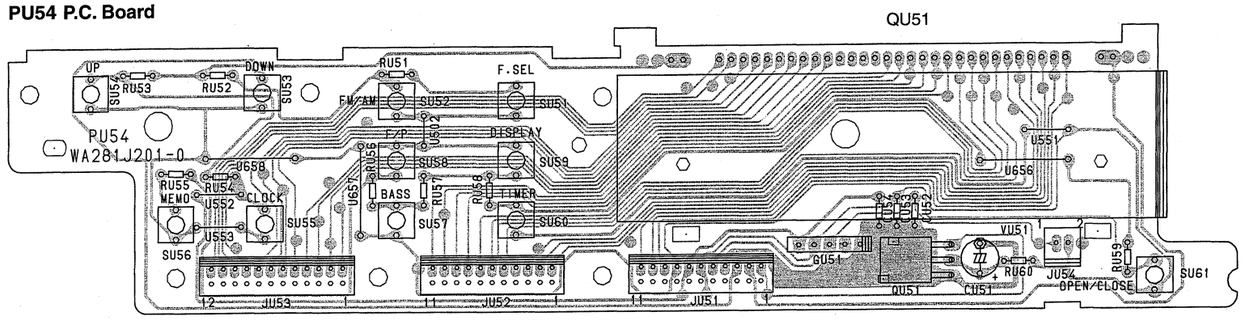
PG04 P.C. Board



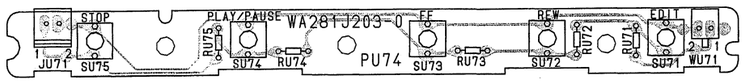


	RU19	RU20	U507	U508
/2	O	O	—	—
F	—	—	O	O
U	O	—	—	O
K	—	O	O	—

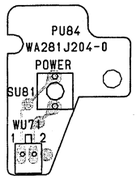
PU54 P.C. Board



PU74 P.C. Board

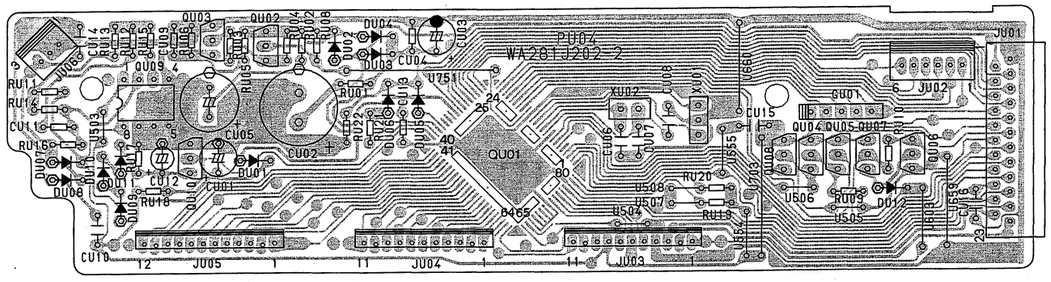


PU84 P.C Board

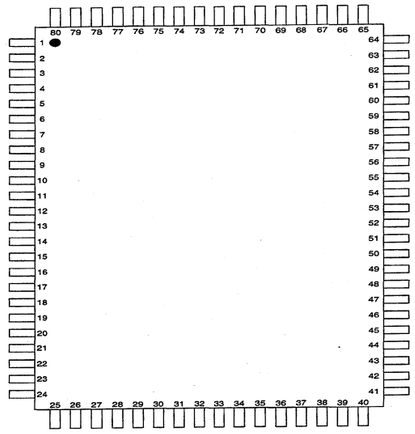


PU04 P.C. Board

QU03 QU02
QU09 QU10
QU01
QU08 QU04
QU06
QU05 QU07



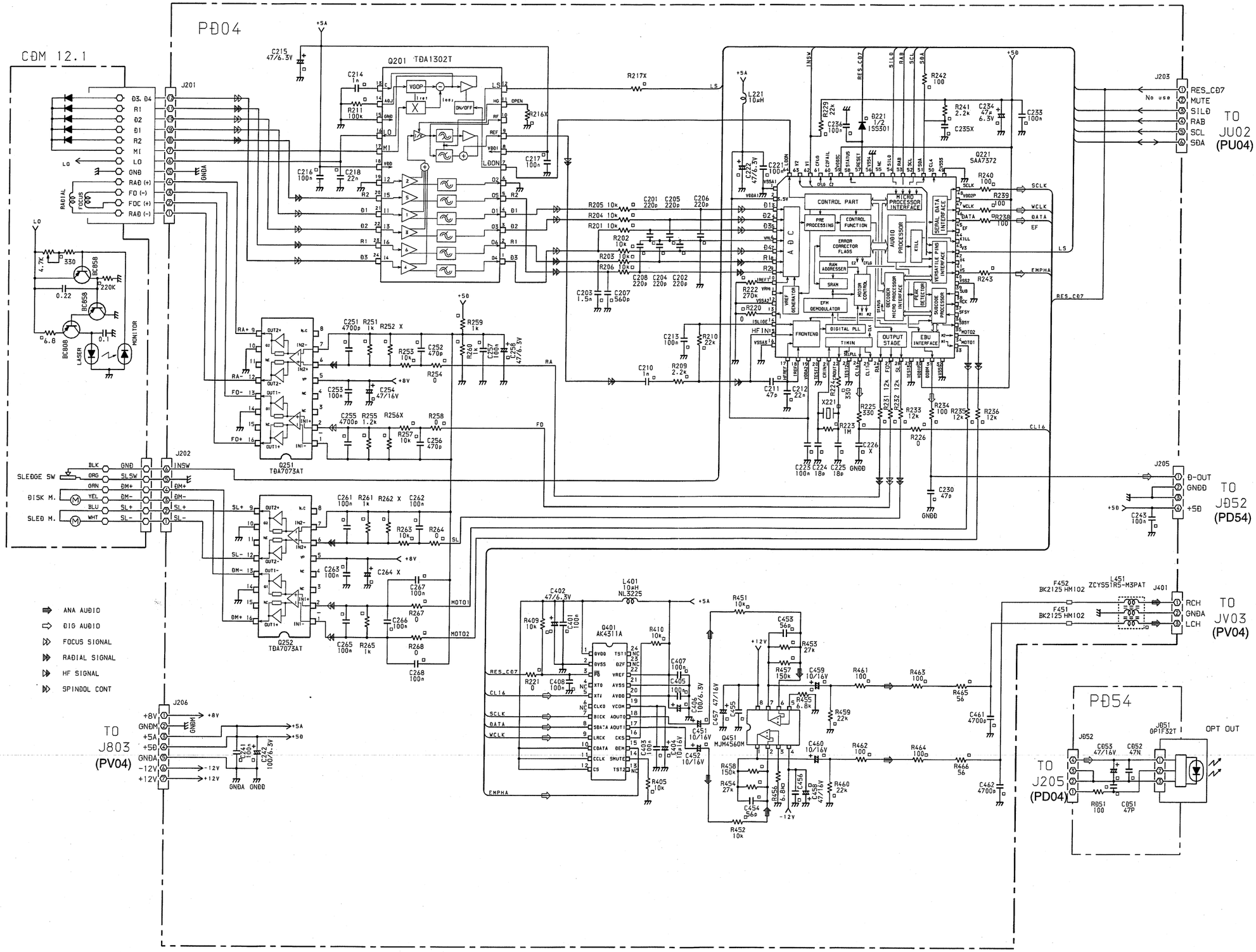
QU01:TMP87C71F



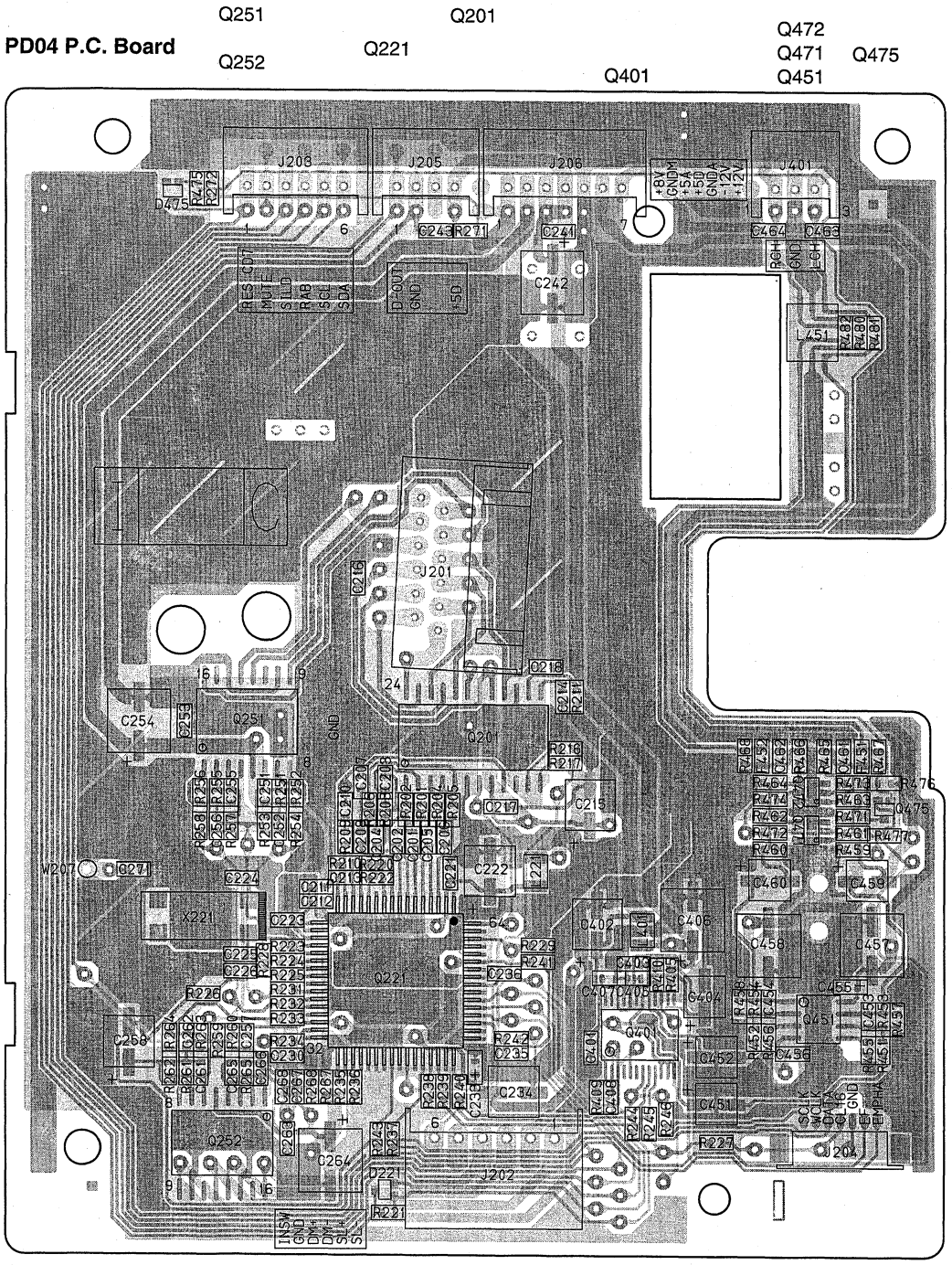
QU01:TMP87C71F

No.	NAME	SIG.NAME	I/O	ACTIVE	FUNCTION
1	P10(INT0)	POWER_DOWN	INT	L	POWER DOWN
2	P11(INT1)	VOLUM_UP	OUT	H	VOLUME UP
3	P12(INT2)	VOLUM_DOWN	OUT	H	VOLUME DOWN
4	P13(DV0)	POWER_RLY	OUT	H	POWER ON
5	P14		OUT	-	
6	P15	TUNER_STEREO	IN	L	TUNER STEREO
7	P16	TUNER_SD	IN	L	TUNER SD
8	P17	EDIT	OUT	L	EDIT ON
9	TEST		GND	-	GND
10	P21(XTIN)	32.768kHz	IN	-	X-TAL
11	P22(XTOUT)	32.768kHz	OUT	-	X-TAL
12	RESET	RESET	IN	L	RESET
13	XIN	8.0MHz	IN	-	X-TAL
14	XOUT	8.0MHz	OUT	-	X-TAL
15	VSS		GND	-	GND
16	P20(INT5)	HOLD	IN	L	HOLD IN
17	P30(INT3)	PC-5 IN	INT	L	PC-5
18	P31	PC-5 OUT	IN	L	PC-5
19	P32(SCK)	CLK	OUT	H	CL(CCB BUS)
20	P33(SI)	DATA_IN	IN	H	DO(CCB BUS)
21	P34(SO)	DATA_OUT	OUT	H	DI(CCB BUS)
22	P35(HSCK)	CE	OUT	H	CE(CCB BUS)
23	P36	CD7_RESET	OUT	L	CD7 RESET
24	P37(HSO)		OUT	L	PICUP POSITION L:IN
25	P00	SILD	OUT	L	CD7 CONTROL
26	P01	RAB	OUT	H	CD7 CONTROL
27	P02	SCL	OUT	H	CD7 CONTROL
28	P03	SDA	IN/OUT	H	CD7 CONTROL
29	P04	TRAY_OPEN	OUT	H	TRAY OPEN
30	P05	TRAY_CLOSE	OUT	H	TRAY CLOSE
31	P06	DOOR_OPEN	OUT	H	DOOR OPEN
32	P07	DOOR_CLOSE	OUT	H	DOOR CLOSE
33	VDD	+5V	+5VS	-	VDD
34	P60(G15)	-		-	N.C.
35	P61(G14)	-		-	N.C.
36	P62(G13)	-		-	N.C.
37	P63(G12)	TUNER_MUTE	OUT	H	TUNER MUTE ON
38	P64(G11)	AUDIO_MUTE	OUT	H	AUDIO MUTE ON
39	P65(G10)	DOOR_TOUCH	IN	L	DOOR TOUCH
40	P66(G9)	G9	OUT	H	DIGIT OUTPUT

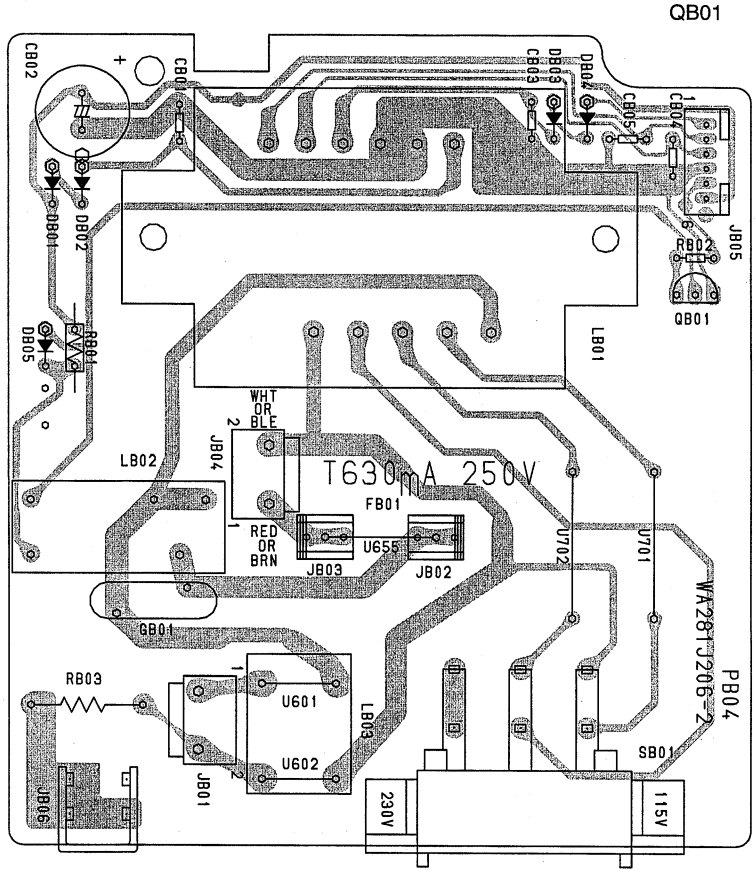
No.	NAME	SIG.NAME	I/O	ACTIVE	FUNCTION
41	P67(G8)	G8	OUT	H	DIGIT OUTPUT
42	P70(G7)	G7	OUT	H	DIGIT OUTPUT
43	P71(G6)	G6	OUT	H	DIGIT OUTPUT
44	P72(G5)	G5	OUT	H	DIGIT OUTPUT
45	P73(G4)	G4	OUT	H	DIGIT OUTPUT
46	P74(G3)	G3	OUT	H	DIGIT OUTPUT
47	P75(G2)	G2	OUT	H	DIGIT OUTPUT
48	P76(G1)	G1	OUT	H	DIGIT OUTPUT
49	P77(G0)	G0	OUT	H	DIGIT OUTPUT
50	P80(S0)	S0	OUT	H	SEGMENT OUTPUT
51	P81(S1)	S1	OUT	H	SEGMENT OUTPUT
52	P82(S2)	S2	OUT	H	SEGMENT OUTPUT
53	P83(S3)	S3	OUT	H	SEGMENT OUTPUT
54	P84(S4)	S4	OUT	H	SEGMENT OUTPUT
55	P85(S5)	S5	OUT	H	SEGMENT OUTPUT
56	P86(S6)	S6	OUT	H	SEGMENT OUTPUT
57	P87(S7)	S7	OUT	H	SEGMENT OUTPUT
58	P90(S8)	S8	OUT	H	SEGMENT OUTPUT
59	P91(S9)	S9	OUT	H	SEGMENT OUTPUT
60	P92(S10)	S10	OUT	H	SEGMENT OUTPUT
61	P93(S11)	S11	OUT	H	SEGMENT OUTPUT
62	P94(S12)	S12	OUT	H	SEGMENT OUTPUT
63	P95(S13)	S13	OUT	H	SEGMENT OUTPUT
64	P96(S14)	S14	OUT	H	SEGMENT OUTPUT
65	P97(S15)	S15	OUT	H	SEGMENT OUTPUT
66	VKK	-B		-	FL POWER SUPPLY
67	P40(KEY0)	*	IN	-	N.C.
68	P41(KEY1)	*	IN	-	N.C.
69	P42(KEY2)	*	IN	-	N.C.
70	P43(KEY3)	*	IN	-	N.C.
71	P44(KEY4)	*	IN	-	N.C.
72	P45(KEY5)	*	IN	-	N.C.
73	P46(A/D)	KEY_IN_3	IN	LEVEL	KEY
74	P47(A/D)	KEY_IN_2	IN	LEVEL	KEY
75	P50(A/D)	KEY_IN_1	IN	LEVEL	KEY
76	P51(A/D)	DOOR_SW	IN	LEVEL	CLOSE,OPEN,OTHER
77	P52(A/D)	TRAY_SW	IN	LEVEL	CLOSE,OPEN,OTHER
78	P53(A/D)	*	IN	-	N.C.
79	P54	VER_SET0	IN	H	79 0 0 F 1 0 U 0 1 K 1 1 /2
80	P55	VER_SET1	IN	H	80 0


PD04
CDM 12.1
Q201 TDA1302T
Q221 SAA7372
Q251 TDA7073AT
Q252 TDA7073AT
Q401 AK4311A
Q451 MJM4560M
J201
J202
J203
J205
J206
J401
J803
J803 (PV04)
J205 (PD04)
J203 TO JU02 (PU04)
J205 TO JD52 (PD54)
J401 TO JV03 (PV04)
PD54
JD52
JD51 GP1F32T
OPT OUT
RES_CD7
No use
MUTE
SILD
RAB
SCL
SDA
D-OUT
GNDD
+5D
SCLK
WCLK
DATA
EF
EMPHA
CL16
LS
FD
RA
SL
MOTO1
MOTO2
LASER
MONITOR
RADIAL
FOCUS
SLEDGE SW
DISK M.
SLED M.
BLK
ORG
GRN
YEL
BLU
WHT
GND
SLSW
DM+
DM-
SL+
SL-
INSW
ANA AUDIO
DIG AUDIO
FOCUS SIGNAL
RADIAL SIGNAL
HF SIGNAL
SPINDOL CONT
CONTROL PART
PRE PROCESSING
CONTROL FUNCTION
MICRO PROCESSOR INTERFACE
SERIAL DATA INTERFACE
AUDIO PROCESSOR
ERROR CORRECTOR FLAGS
RAM ADDRESSER
SRAM
EFM DEMODULATOR
FRONTEND
DIGITAL PLL
TIMIN
OUTPUT STAGE
EBU INTERFACE
MOTOR CONTROL
DECODER MICRO PROCESSOR INTERFACE
SUBCODE DETECTOR
SUBCODE DECODER
VERSATILE PINS INTERFACE
VREF GENERATOR
A D C
+5A
+5D
+8V
-12V
+12V
GNDA
GNDD
GNDM

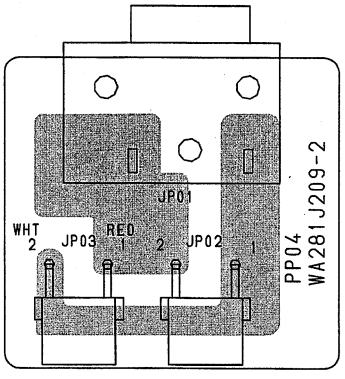
PD04 P.C. Board



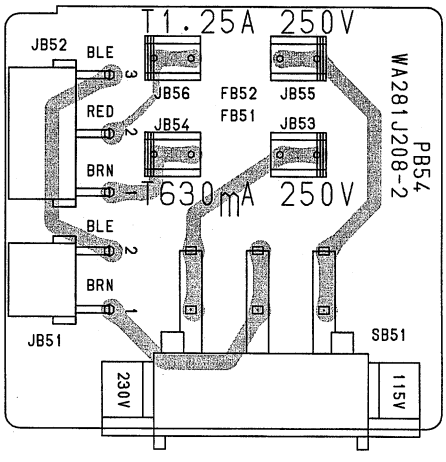
PB04 P.C. Board

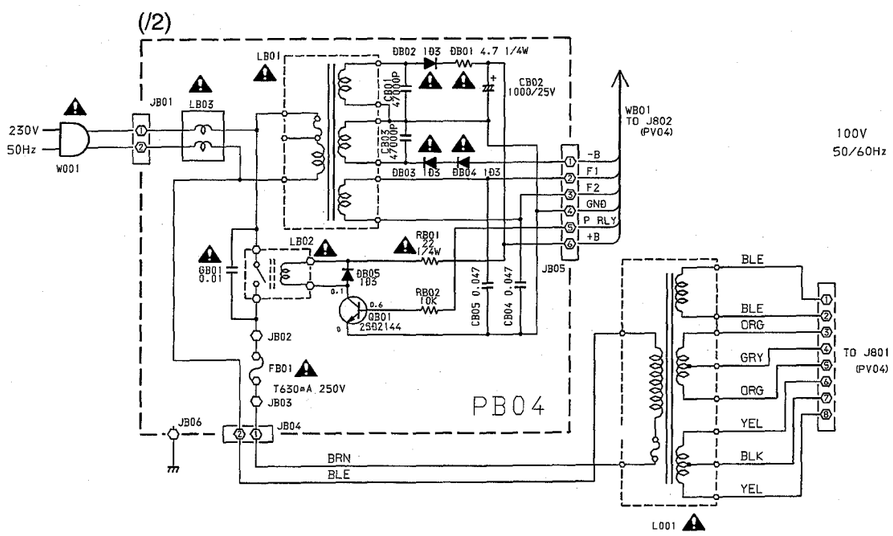


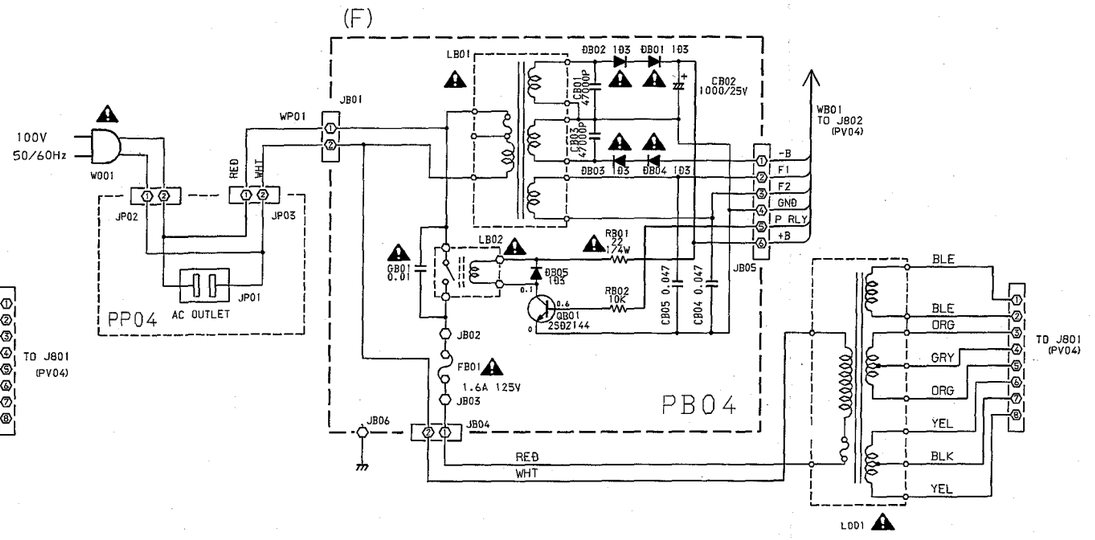
PP04 P.C. Board

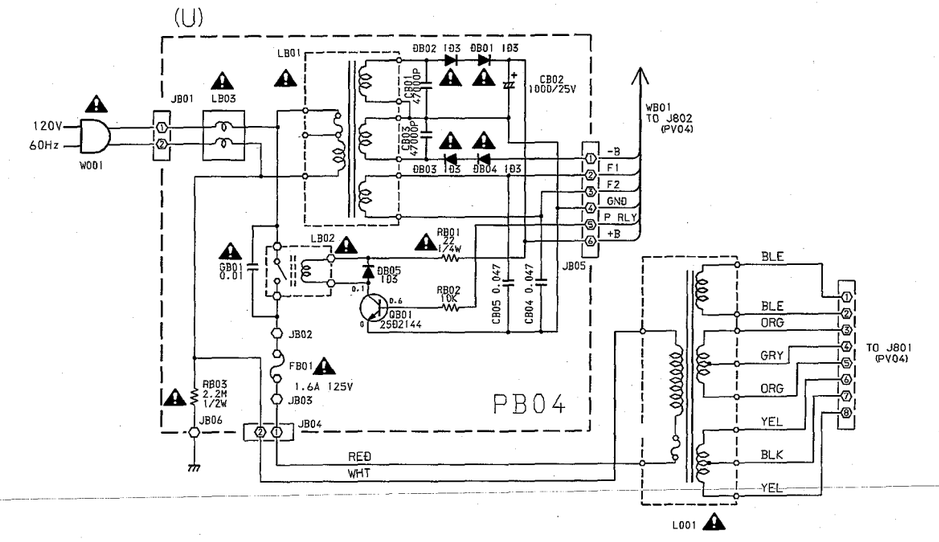


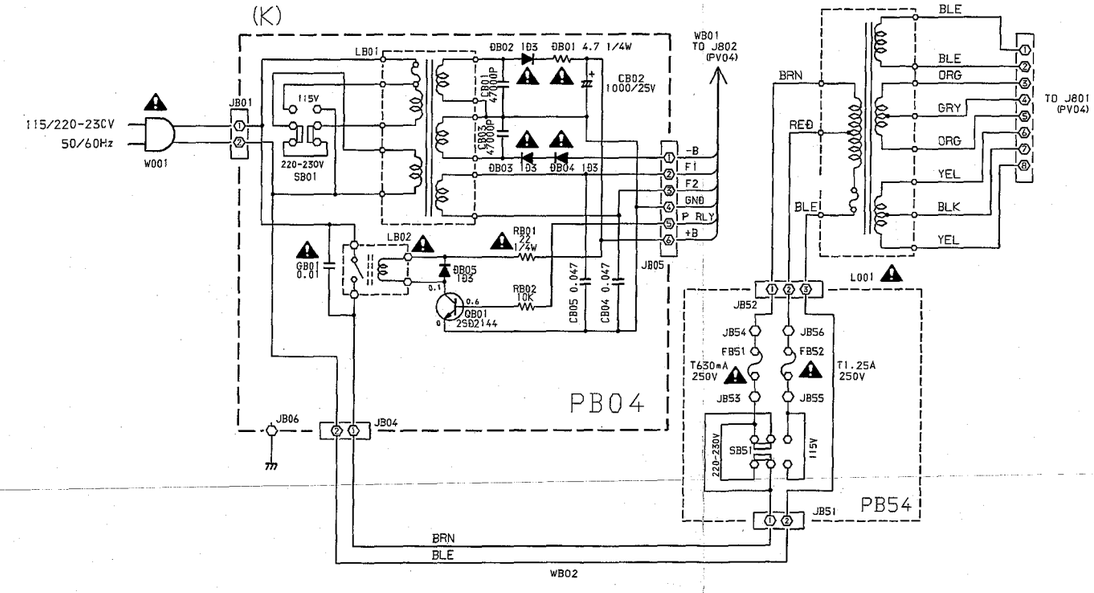
PB54 P.C. Board




(/2)
230V
50Hz
W001
JB01
LB03
LB01
DB02 1D3
DB01 4.7 1/4W
CB02 1000/25V
DB03 1D3
DB04 1D3
WB01 TO J802 (PV04)
-B
F1
F2
GND
P RLY
+B
JB05
LB02
RB01 22 1/2W
GB01 0.01
DB05 1D5
RB02 10K
QB01 2SD2144
CB05 0.047
CB04 0.047
JB02
FB01
T630mA 250V
JB03
JB06
JB04
PB04
BRN
BLE
BLE
ORG
GRY
ORG
YEL
BLK
YEL
TO J801 (PV04)
L001


(F)
100V
50/60Hz
W001
WP01
JB01
RED
WHT
JP02
JP03
JP01
PP04
AC OUTLET
LB01
DB02 1D3
DB01 1D3
CB02 1000/25V
WB01 TO J802 (PV04)
-B
F1
F2
GND
P RLY
+B
JB05
LB02
RB01 22 1/2W
GB01 0.01
DB05 1D5
RB02 10K
QB01 2SD2144
CB05 0.047
CB04 0.047
JB02
FB01
1.6A 125V
JB03
JB06
JB04
PB04
RED
WHT
BLE
BLE
ORG
GRY
ORG
YEL
BLK
YEL
TO J801 (PV04)
L001

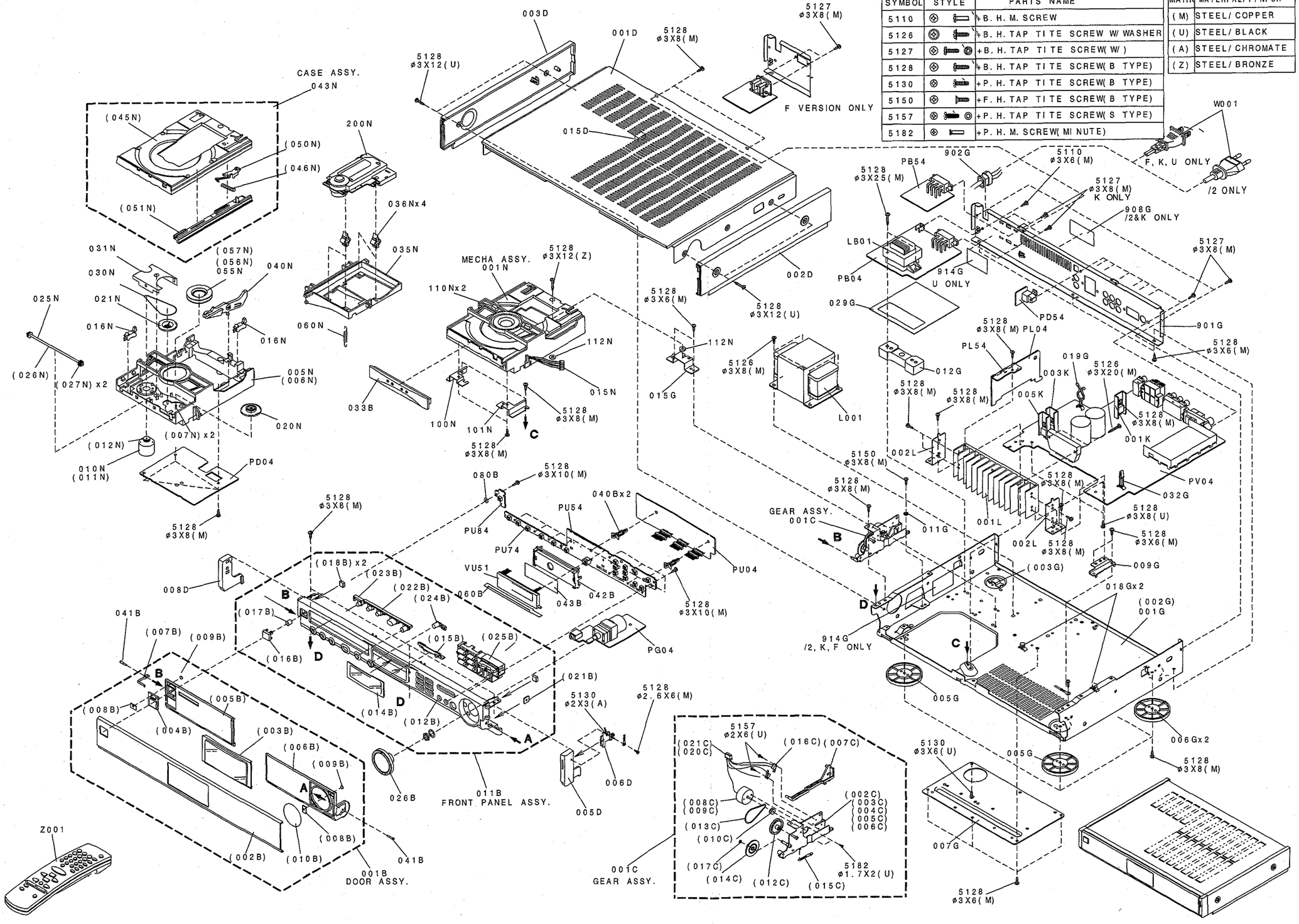

(U)
120V
60Hz
W001
JB01
LB03
LB01
DB02 1D3
DB01 1D3
CB02 1000/25V
DB03 1D3
DB04 1D3
WB01 TO J802 (PV04)
-B
F1
F2
GND
P RLY
+B
JB05
LB02
RB01 22 1/2W
GB01 0.01
DB05 1D5
RB02 10K
QB01 2SD2144
CB05 0.047
CB04 0.047
JB02
FB01
1.6A 125V
JB03
RB03 2.2M 1/2W
JB06
JB04
PB04
RED
WHT
BLE
BLE
ORG
GRY
ORG
YEL
BLK
YEL
TO J801 (PV04)
L001


(K)
115/220-230V
50/60Hz
W001
JB01
115V
220-230V
SB01
LB01
DB02 1D3
DB01 4.7 1/4W
CB02 1000/25V
WB01 TO J802 (PV04)
-B
F1
F2
GND
P RLY
+B
JB05
LB02
RB01 22 1/2W
GB01 0.01
DB05 1D5
RB02 10K
QB01 2SD2144
CB05 0.047
CB04 0.047
JB06
JB04
PB04
BRN
RED
BLE
BLE
ORG
GRY
ORG
YEL
BLK
YEL
TO J801 (PV04)
L001
JB52
JB54
JB56
FB51
FB52
T630mA 250V
T1.25A 250V
JB53
JB55
SB51
220-230V
115V
JB51
PB54
BRN
BLE
WB02

5. EXPLODED VIEW AND PARTS LIST

SYMBOL	STYLE	PARTS NAME
5110		+B. H. M. SCREW
5126		+B. H. TAP TITE SCREW W/ WASHER
5127		+B. H. TAP TITE SCREW(W/)
5128		+B. H. TAP TITE SCREW(B TYPE)
5130		+P. H. TAP TITE SCREW(B TYPE)
5150		+F. H. TAP TITE SCREW(B TYPE)
5157		+P. H. TAP TITE SCREW(S TYPE)
5182		+P. H. M. SCREW(MINUTE)

MARK	MATERIAL/FINISH
(M)	STEEL/ COPPER
(U)	STEEL/ BLACK
(A)	STEEL/ CHROMATE
(Z)	STEEL/ BRONZE



(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, **:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
001B	FBV, KCB, UCB, /2B	4822 443 10933	ESCUTCHEON, DOOR AL PANEL ASSY CR BLACK	281J063510
001B	FTB, KBZ, /2A	4822 443 10934	ESCUTCHEON, DOOR AL PANEL ASSY CR TITAN	281J063500
001B	/2M	*REMARK	ESCUTCHEON, DOOR AL PANEL ASSY CR BLANK	
011B	FBV, KCB, UCB		FRONT PANEL ASSY CR BLACK	281J248510
011B	FTB, KBZ		FRONT PANEL ASSY CR TITAN	281J248500
011B	/2A	4822 459 04962	FRONT PANEL ASSY CR TITAN	281J248520
011B	/2B/2M	4822 459 04961	FRONT PANEL ASSY CR BLACK	281J248530
012B	FBV, KCB, UCB		FRONT PANEL CR BLACK	281J248110
012B	FTB, KBZ,		FRONT PANEL CR TITAN	281J248010
012B	/2A	4822 459 04964	FRONT PANEL CR TITAN	281J248050
012B	/2B/2M	4822 459 04963	FRONT PANEL CR BLACK	281J248150
014B		4822 450 62123	WINDOW, FL	271K158010
015B		4822 381 11434	LENS, IR	271K355010
016B	FBV, KCB, UCB, /2B/2M	4822 410 62877	BUTTON, POWER BLACK	157J270130
016B	FTB, KBZ, /2A	4822 410 62813	BUTTON, POWER TITAN	157J270030
017B		4822 492 33409	SPRING, POWER	271K115010
018B		4822 526 20213	MAGNET ASSY	271K305500
021B		4822 505 11161	NUT	446T011010
025B	FBV, KCB, UCB, /2B/2M		BUTTON, FUNCTION BLACK	281J270110
025B	FTB, KBZ, /2A		BUTTON, FUNCTION TITAN	281J270010
026B	FBV, KCB, UCB, /2B/2M	4822 410 11781	KNOB, MASTER VOLUME BLACK	281J154110
026B	FTB, KBZ, /2A	4822 410 11782	KNOB, MASTER VOLUME TITAN	281J154010
033B	FBV, KCB, UCB, /2B/2M	4822 442 01348	ESCUTCHEON, TRY CD BLACK	294K063320
033B	FTB, KBZ, /2A	4822 454 30501	ESCUTCHEON, TRY CD TITAN	294K063020
041B		4822 502 21585	SCREW, DOOR	446T010010
001C		4822 522 33389	GEAR ASSY	446T058500
007C		4822 404 21283	LEVER	446T354010
008C		4822 361 21687	D.C MOTOR ASSY	*MM000630R
012C		4822 528 40363	PULLEY	446T262020

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
013C		4822 358 31264	BELT	446T264010
014C		4822 522 33388	GEAR	446T058010
015C		4822 492 33411	SPRING	446T115010
016C		4822 271 30768	MINI SW., LEAF	SM01011530
017C		4822 462 71954	STOPPER, WASHER	204K114210
001D	FBV, KCB, UCB		LID, TOP COVER CR BLACK	157J257240
001D	FTB, KBZ		LID, TOP COVER CR TITAN	157J257210
002D	FBV, KCB, UCB, /2B	4822 426 10559	SIDE PANEL, R BLACK	281J249010
002D	FTB, KBZ, /2A	4822 426 30156	SIDE PANEL, R TITAN	157J249010
002D	/2M	*REMARK	SIDE PANEL, R BLANK	
003D	FBV, KCB, UCB, /2B	4822 426 10561	SIDE PANEL, L BLACK	281J249020
003D	FTB, KBZ, /2A	4822 426 30157	SIDE PANEL, L TITAN	157J249020
003D	/2M	*REMARK	SIDE PANEL, L BLANK	
005D	FBV, KCB, UCB, /2B	4822 426 10562	BUSHING, SIDE R BLACK	281J259010
005D	FTB, KBZ, /2A	4822 532 12253	BUSHING, SIDE R TITAN	157J259010
005D	/2M	*REMARK	BUSHING, SIDE R BLANK	
006D		4822 281 50181	CONTACTOR, 2 TOUCH	294K123010
008D	FBV, KCB, UCB, /2B	4822 426 10563	BUSHING, SIDE L BLACK	281J259020
008D	FTB, KBZ, /2A	4822 532 12254	BUSHING, SIDE L TITAN	157J259020
008D	/2M	*REMARK	BUSHING, SIDE L BLANK	
005G		4822 462 42068	LEG, FRONT	271K057110
006G		4822 462 42069	LEG, REAR	271K057120
902G	F,U,/2	4822 532 60948	BUSHING	450H259010
902G	K	4822 532 61184	BUSHING	085J259010
001N			MECHANISM, CD LOADER LM-300	305K304560
010N		4822 361 21741	D.C MOTOR	MM0030002R
016N		4822 271 30873	MINI SW.	SM01020620
020N		4822 522 33521	GEAR	305K058030
021N		4822 528 81537	PULLEY	305K262010
025N		4822 522 33522	GEAR	305K058500
030N		4822 358 31314	BELT	305K264010
035N		4822 443 51265	CASE	305K064110
036N		4822 462 72118	BUFFER, SUSPENSION	305K056010
040N		4822 402 20104	ARM	305K002010
043N		4822 444 50732	CASE	305K064500
046N		4822 492 33494	SPRING	305K115010
050N		4822 528 30429	CAM	305K054010
051N		4822 522 33519	GEAR	305K058010

***REMARK : Remarked parts for are not standard spare parts. If it is necessary for repair, Please contact to MARANTZ EUROPE B.V..**

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, **:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
055N		4822 401 11582	CLAMPER	305K005500
060N		4822 492 33495	SPRING	305K115020
200N		4822 691 30278	MECHANISM, CDM 12.1	292K304500
⚠ L001	F		MAINS TRANSFORMER 100V	TS16674020
⚠ L001	K		MAINS TRANSFORMER 115V 230V	TS16674040
⚠ L001	/2	4822 146 10968	MAINS TRANSFORMER 230V	TS16674010
⚠ L001	U		MAINS TRANSFORMER 120V	TS16674030
⚠ W001	F	4822 321 11359	MAINS CORD	YC01800800
⚠ W001	K,/2	4822 321 11343	MAINS CORD	YC01800790
⚠ W001	U		MAINS CORD, UL CSA	YC01800780
			PACKING	
001T	F		USER GUIDE	281J851110
001T	K,U		USER GUIDE	281J851250
001T	/2	4822 736 16048	USER GUIDE	281J851310
Z001		4822 219 10474	REMOTE COMMANDER RC2020CR	ZK281J0010
			NOT STANDARD SPARE PARTS	
001S	F,U		PACKING CASE	281J801010
002S	F,U		CUSHION, L SIDE	157J809010
003S	F,U		CUSHION, R SIDE	157J809020
Z002	F		BATTERY, UM-4NEPH/2S	ZF24302000
Z003		4822 157 63083	ANT COIL, LA-700HB LOOP ANT.	LA00055010
Z004	F,U		EXT.ANTENNA, FM FEEDER	ZA02000070
Z004	K,/2		EXT.ANTENNA, FM FEEDER W/CONNECTOR	ZA02800020
Z005	F,U	4822 264 30265	PLUG, ANT PLUG ADAPTOR	YP90000310
Z006	K	4822 267 31647	JACK, AC PLUG ADAPTER CCT59/2M-0701	YJ04001960
Z007	F		CONNECTIVE CORD, SPK 5M X2	ZD05000010

6. SERVICE PROGRAM

1. How to into the Service Mode (Segment check mode)

1) Confirm the product status in the "POWER OFF" (STAND-BY) mode and remove the mains plug from the mains outlet.
2) While holding the "DISPLAY" + "UP" buttons together and put the mains plug to the mains outlet. Keep the front door open, while this operation. (Door will be closed automatically.)
3) The FL display shows "FL CHECK" three seconds.
4) After that all segments turn off, then the segments light one by one except the alpha-numeric segments.
5) Then all segments turn off, after that the alpha-numeric segments light one by one.
6) Finally all segments are blinked, then return to the 4) and continue procedures.
7) Segment check mode will continue until press a button ("PLAY/PAUSE" or "FM/AM").

[REMARK]
Segments check mode can not be released by pressing of other buttons.

2. Tracking point memory mode

1) Press the "FM/AM" button while the segments check mode.
2) The FL display shows "TR FREQ" three seconds. Then tracking point frequencies have recalled and the source function has turned to "TUNER".
3) Frequencies have preset as tables bellow.

(User programmed frequencies will be deleted.)

サービス・モード機能

1. サービスモードの入れ方 (セグメントチェックモード)

1) 電源プラグを接続しPOWER OFF (STAND -BY)の状態にし、電源プラグをはずす。
2) 本体の「DISPLAY」+ 「UP」ボタンを押しながら電源プラグを接続する。このとき、フロントのドアが自動的に閉まるため、強制的にドアを押さえて閉じないようにする。
3) サービスモードにはいり、ディスプレイに"FL CHECK"と3秒間表示される。
4) 一度全消灯し、14セグメントと7セグメントを除いて、右上から順次点灯する。
5) 次に、消灯し14セグメントと7セグメントが1本ずつ順次点灯する。
6) 最後に、FLの全てのセグメントが点滅し、始めからの動作を繰り返す。(4. へ戻る)
7) 「PLAY/PAUSE」ボタン(「CD TESTモード」へ)、または「FM/AM」ボタン(「トラッキングポイント周波数メモリーモード」へ)のいずれかのボタンが押されるまで、セグメントチェックが繰り返される。(他のキーは無効)

2. トラッキングポイント周波数メモリーモード

1)「セグメントチェックモード(サービスモード)」の状態にて、本体の「FM/AM」ボタンを押す。
2) ディスプレイに"TR FREQ"と3秒間表示され、トラッキングポイント周波数がメモリーされる。(「トラッキングポイント周波数メモリーモード」になり、ファンクションは、TUNERとなる。)
3)「トラッキングポイント周波数メモリーモード」になると、下表の周波数がそれぞれのプリセット番地にメモリーされる。(前のデータがある場合はオーバーライトされる。)

	VERSION	P1 - P3	P4	P5	P6	
FM	JAPAN (F)	76.0	78.0	83.0	88.0	MHz
	FAR EAST(K),USA (U),EUROPE (/2)	87.5	90.0	98.0	106.0	

	VERSION	P7	P8	P9	P10	P11	P12	P13	
AM	JAPAN (F)	603	999	1404	531	←	←	←	kHz
	USA (U)	600	1000	1400	520	←	←	←	
	WITHOUT LW (K)	603	999	1404	531	←	←	←	
	WITH LW (/2)	603	999	1404	171	207	270	152	

No frequencies are memorized in preset No. P14-P30.

P14-P30 には何もメモリーされません。

[REMARK]
How to clear preset memories;
See the content 5. All clear.

※ メモリーをクリアーするには… "5. オールクリアー(マイコンの設定を出荷状態にするには)"を参照。

3. CD Test mode

1) Press the "PLAY/PAUSE" button while in the segments check mode.
2) The FL display shows "CD TEST" three seconds.
3) Press the "UP" button, then the sledge move to the outside. Press the "DOWN" button then the sledge move to the inside. Press the "F/P" button while the sledge is moving, then the sledge stop. Press the "DISPLAY" button, then the laser pick up unit is giving out the beam. Press the "DISPLAY" button again then the laser pick up unit stop beam out. All operations are available with out the Disc.
4) If any ERROR is happened, the display shows "CD ERR X". (X is a ERROR code.) The ERROR message will not be clear until pressing "CD OPEN/CLOSE", "STOP" or "POWER" buttons.

Error Code	Description
1	The sledge switch not turn on.
2	The sledge switch not turn off.
3	The laser pick up unit not focus.
4	The Tracking is not fixed.
5	The spindle motor not locked.

4. How to stop "Service mode"

Press the "POWER" button while in every service mode.

[REMARK]
The microprocessor will not be clear by above operation.

5. How to "All clear"

1) Press the "F/P" button and "F.SEL" button with "STOP" button while in the Tracking point memory mode.
2) The display shows "CLEAR" two seconds. Then all memories will be clear and product will be in POWER OFF (STAND-BY).

3. CD TEST モード

1)「セグメントチェックモード(サービスモード)」の状態にて、本体の「PLAY/PAUSE」ボタンを押す。
2) ディスプレイに"CD TEST"と3秒間表示される。(「CD TEST」になる。)
3)「CD TESTモード」でCD停止状態(Disc無しでも可)の時、「UP」ボタンでスレッジが外周に「DOWN」ボタンで内周に移動し、「F/P」ボタンで停止する。また、"DISPLAY"ボタンでレーザーの照射をON/OFFする。
4)「CD TESTモード」中エラーが発生した時は、ディスプレイに"CD ERR X"("X"はエラーコード)と表示される。表示は、「CD OPEN/CLOSE」、「STOP」、「POWER」のいずれかのボタンが押されるまで継続する。

エラーコード	エラーの詳細
1	スレッジのスイッチがONしない
2	スレッジのスイッチがOFFしない
3	フォーカスが合わない
4	トラッキングが合わない
5	スピンドルモーターがロックしない

4. サービスモードから抜けるには

サービスモードから抜けるには、「CD TESTモード」、「トラッキングポイント周波数メモリーモード」の状態にて「POEWR」ボタンを押す。(注意:メモリーのクリアーはされない。)または、オールクリアーをする。

5. オールクリアー(マイコンの設定を出荷状態にするには)

1)「トラッキングポイント周波数メモリーモード」の状態にて、「F/P」+「F.SEL」ボタンを押しながら「STOP」ボタンを押す。
2) ディスプレイに「CLEAR」と2秒間表示し、メモリーがクリアされた後、POWER OFF(STAND-BY)の状態になる。

7. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R✱✱✱ : 1) GD05 × × × 140, Carbon film fixed resistor, ±5% 1/4W
R✱✱✱ : 2) GD05 × × × 160, Carbon film fixed resistor, ±5% 1/6W
① —— Resistance value

Examples ;
① Resistance value

0.1Ω 001	10Ω ... 100	1kΩ 102	100kΩ..... 104
0.5Ω 005	18Ω ... 180	2.7kΩ 272	680kΩ..... 684
1Ω 010	100Ω ... 101	10kΩ 103	1MΩ..... 105
6.8Ω 068	390Ω ... 391	22kΩ 223	4.7MΩ..... 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C✱✱✱ : CERAMIC CAP.
3) DD1 × ② × × × ③ 370, Ceramic capacitor
Disc type
Temp.coeff.P350 ~ N1000, 50V
③ —— Capacity value
② —— Tolerance

Examples ;
② Tolerance (Capacity deviation)
±0.25pF 0
±0.5pF 1
±5% 5
✱ Tolerance of COMMON PARTS handled here are as follows :
0.5pF ~ 5pF ... ±0.25pF
6pF ~ 10pF ... ±0.5pF
12pF ~ 560pF ... ±5%
③ Capacity value

0.5pF ... 005	3pF ... 030	100pF ... 101
1pF ... 010	10pF ... 100	220pF ... 221
1.5pF ... 015	47pF ... 470	560pF ... 561

C✱✱✱ : CERAMIC CAP.
4) DK16 × × × ④ 300, High dielectric constant ceramic capacitor
Disc type
Temp.chara. 2B4, 50V
④ —— Capacity value

Examples ;
④ Capacity value

100pF ... 101	1000pF 102	10000pF ... 103
470pF ... 471	2200pF 222	

C✱✱✱ : 5) ELECTROLY CAP. (⫩), 6) FILM CAP. (⫧)
5) EA ⑤ × × × ⑥ × × × 10, Electrolytic capacitor
One-way lead type, Tolerance ±20%
⑥ —— Working voltage
⑤ —— Capacity value

Examples ;
⑤ Capacity value

0.1μF 104	4.7μF ... 475	100μF ... 107
0.33μF 334	10μF ... 106	330μF ... 337
1μF 105	22μF ... 226	1100μF ... 118
		2200μF ... 228

⑥ Working voltage

6.3V 006	25V ... 025
10V 010	35V ... 035
16V 016	50V ... 050

6) DF15 × × × 350 ——→ Plastic film capacitor
DF15 × × × 310 ——→ One-way type, Mylar ±5% 50V
DF16 × × ⑦ 310 ——→ Plastic film capacitor
One-way type, Mylar ±10% 50V
⑦ —— Capacity value

Examples ;
⑦ Capacity value

0.001μF (1000pF) 102	0.1μF 104
0.0018μF 182	0.56μF 564
0.01μF 103	1μF 105
0.015μF 153	

NOTE : 1) The above CODES (R✱✱✱, R✱✱✱, C✱✱✱, C✱✱✱ and C✱✱✱) are omitted on the schematic diagram in some case.
2) On the occasion, be confirmed the common parts on the parts list.
3) Refer to "Common Parts List" for the other common parts (**RI05, DD4, DK4**).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;
1. KOA Corporation

Part No. (MJI)	Type No. (KOA)	Description
NH05 × × × 140	RF25S × × × × ΩJ	(±5% 1/4W)
NH05 × × × 120	RF50S × × × × ΩJ	(±5% 1/2W)
NH85 × × × 110	RF73B2A × × × × ΩJ	(±5% 1/10W)
NH95 × × × 140	RF73B2E × × × × ΩJ	(±5% 1/4W)

✱ Resistance value
Resistance value (0.1 – 10kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJI)	Type No. (MEC)	Description
NF05 × × × 140	ERD-2FCJ × × ×	(±5% 1/4W)
RF05 × × × 140		
NF02 × × × 140	ERD-2FCG × × ×	(±2% 1/4W)
RF02 × × × 140		

✱ Resistance value
✱ Resistance value

Examples ;
✱ Resistance value

0.1Ω 001	10Ω ... 100	1kΩ 102	100kΩ 104
0.5Ω 005	18Ω ... 180	2.7kΩ 272	680kΩ 684
1Ω 010	100Ω ... 101	10kΩ 103	1MΩ 105
6.8Ω 068	390Ω ... 391	22kΩ 223	4.7MΩ 475

ABBREVIATION AND MARKS

ANT.	: ANTENNA	BATT.	: BATTERY
CAP.	: CAPACITOR	CER.	: CERAMIC
CONN.	: CONNECTING	DIG.	: DIGITAL
HP	: HEADPHONE	MIC.	: MICROPHONE
μ-PRO	: MICROPROCESSOR	REC.	: RECORDING
RES.	: RESISTOR	SPK	: SPEAKER
SW	: SWITCH	TRANSF.	: TRANSFORMER
TRIM.	: TRIMMING	TRS.	: TRAMSISTOR
VAR.	: VARIABLE	X'TAL	: CRYSTAL

NOTE ON SAFETY :

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意 :

⚠ がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

SM970926ACT
PCS 98 657

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, **:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			PB04-BACK UP	
			PB04-CAPACITORS	
CB01		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
CB02			ELECT, 1000µF 25V	EA10802510
CB03		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
CB04		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
CB05		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
			PB04-RESISTORS	
⚠ DB01	K,/2	4822 113 90107	FUSIBLE, 4.7Ω ±5% 1/4W	NH05047140
RB01		4822 050 22209	RES., 22Ω ±5% 1/4W	GG05220140
RB02			RES., 10kΩ ±5% 1/6W	GD05103160
⚠ RB03	U		RES., 2.2MΩ ±10% 1/2W	RC10225820
			PB04-SEMICONDUCTORS	
⚠ DB01	F,U	4822 130 82421	DIODE, 1D3	HD20002710
⚠ DB01	K,/2	4822 113 90107	FUSIBLE, 4.7Ω ±5% 1/4W	NH05047140
⚠ DB02				
⚠ DB05	⟆	4822 130 82421	DIODE, 1D3	HD20002710
QB01		4822 130 61892	TRS., 2SD2144S U OR V	HT421442A0
			PB04-MISCELLANEOUS	
⚠ FB01	F		FUSE, 1.6A 125V FBT	FS10160350
⚠ FB01	/2	4822 070 36301	FUSE, T630MA 250V SEMKO/BS LISTED	FS10063850
⚠ FB01	/2	4822 070 36301	FUSE, T630MA 250V SEMKO/BS LISTED	FS10063850
⚠ FB01	/2	4822 070 36301	FUSE, T630MA 250V SEMKO/BS LISTED	FS10063850
⚠ FB01	U		FUSE, 1.6A 125V FBT	FS10160350
⚠ GB01		4822 122 33276	CER., DE7150 F 103M	DK17103840
⚠ LB01	F		MAINS TRANSFORMER 100V	TS14823270
⚠ LB01	K	4822 146 10878	MAINS TRANSFORMER 115V 230V	TS14823310
⚠ LB01	/2	4822 146 10879	MAINS TRANSFORMER 230V	TS14823290
⚠ LB01	U		MAINS TRANSFORMER 120V	TS14823280
⚠ LB02		4822 280 80754	RELAY, VS-12MB DC12V	LY10120380
⚠ LB03	/2	4822 157 11583	10mH 1A	FN01010060
⚠ LB03	U	4822 157 70419	UF2327L-103Y1R0-01, LF-4D-102	FN01020020
⚠ SB01	K	4822 277 21825	SLIDE SW., SDKGA4 SEMKO	SS02021510
			PB54-VOLTAGE SELECTOR CIRCUIT BOARD [K ONLY]	
			PB54-MISCELLANEOUS	
⚠ FB51	K	4822 070 36301	FUSE, T630MA 250V SEMKO BS LISTED	FS10063850
⚠ FB52	K	4822 070 31252	FUSE, T1.25A 250V SEMKO/BS LISTED	FS10125850
⚠ SB51	K	4822 277 21825	SLIDE SW., SDKGA4 SEMKO	SS02021510
			PD04-CD SERVO DECODER DAC CIRCUIT BOARD	
			PD04-CAPACITORS (CHIP)	
C201		4822 126 11668	CER., 220pF ±5% CG 50V	DD95221300
C202		4822 126 11668	CER., 220pF ±5% CG 50V	DD95221300
C203		4822 126 12495	CER., 1500pF ±10% GR39	DK96152300
C204		4822 126 11668	CER., 220pF ±5% CG 50V	DD95221300
C205		4822 126 11668	CER., 220pF ±5% CG 50V	DD95221300
C206		4822 126 11668	CER., 220pF ±5% CG 50V	DD95221300
C207		4822 126 11724	CER., 560pF ±5% W5R	DK96561300
C208		4822 126 11668	CER., 220pF ±5% CG 50V	DD95221300
C210		4822 126 12516	CER., 1000pF ±10% B 50V	DK96102300
C211		4822 122 33777	CER., 47pF ±5% CG 50V	DD95470300
C212		4822 126 11567	CER., 0.022µF ±10% XTR 16V	DK96223200
C213		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C214		4822 126 12516	CER., 1000pF ±10% B 50V	DK96102300
C215		4822 124 11131	TANTL., 47µF 6.3V	EY47600620
C216		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C217		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C218		4822 126 11567	CER., 0.022µF ±10% XTR 16V	DK96223200
C221		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C222		4822 124 11131	TANTL, 47µF 6.3V	EY47600620
C223		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C224		4822 122 33757	CER., 18pF ±5% GR39	DD95180300
C225		4822 122 33757	CER., 18pF ±5% GR39	DD95180300
C230		4822 122 33777	CER., 47pF ±5% CG 50V	DD95470300
C233		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C234		4822 124 11131	TANTL., 47µF 6.3V	EY47600620
C236		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C241		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C242		4822 124 10772	TANTL, 100µF 6.3V	EY10700620
C243		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C251		4822 126 11685	CER., 4700pF ±10% B 50V	DK96472300
C252		4822 126 11568	CER., 470pF GR39	DK96471300
C253		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C254		4822 124 41842	TANTL, 47µF 16V	EY47601620
C255		4822 126 11685	CER., 4700pF ±10% B 50V	DK96472300
C256		4822 126 11568	CER., 470pF GR39	DK96471300
C257		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C258		4822 124 11131	TANTL, 47µF 6.3V	EY47600620
C261		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C262		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C263		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C265				
⟆		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C268				
C401		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C402		4822 124 11131	TANTL, 47µF 6.3V	EY47600620
C403		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C404		4822 124 11074	TANTL, 10µF 16V	EY10601620
C405		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C406		4822 124 10772	TANTL, 100µF 6.3V	EY10700620
C407		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C408		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C451		4822 124 11074	TANTL, 10µF 16V	EY10601620
C452		4822 124 11074	TANTL, 10µF 16V	EY10601620
C453		4822 122 33782	CER., 56pF ±5% GR39	DD95560300
C454		4822 122 33782	CER., 56pF ±5% GR39	DD95560300
C455		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C456		4822 126 11687	CER., 0.1µF +80%-20%	DK98104200
C457		4822 124 41842	TANTL, 47µF 16V	EY47601620
C458		4822 124 41842	TANTL, 47µF 16V	EY47601620
C459		4822 124 11074	TANTL, 10µF 16V	EY10601620
C460		4822 124 11074	TANTL, 10µF 16V	EY10601620
C461		4822 126 11685	CER., 4700pF ±10% B 50V	DK96472300
C462		4822 126 11685	CER., 4700pF ±10% B 50V	DK96472300
			PD04-RESISTORS (CHIP)	
R201				
⟆		4822 051 30103	RES., 10kΩ ±5% 1/16W	NN05103610
R206				
R209		4822 051 30222	RES., 2.2kΩ ±5% 1/16W	NN05222610

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, **:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
R210		4822 051 30223	RES., 22kΩ ±5% 1/16W	NN05223610
R211		4822 051 30104	RES.,100kΩ ±5% 1/16W	NN05104610
R220		4822 116 82487	RES., 0Ω 1/16W	NN05000610
R221		4822 116 82487	RES., 0Ω 1/16W	NN05000610
R222		4822 051 30274	RES.,270kΩ ±5% 1/16W	NN05274610
R223		4822 051 30105	RES., 1MΩ ±5% 1/16W	NN05105610
R224		4822 051 30331	RES., 330Ω ±5% 1/16W	NN05331610
R225		4822 051 30331	RES., 330Ω ±5% 1/16W	NN05331610
R226		4822 116 82487	RES., 0Ω 1/16W	NN05000610
R229		4822 051 30223	RES., 22kΩ ±5% 1/16W	NN05223610
R231		4822 116 83208	RES., 12kΩ ±5% 1/16W	NN05123610
R232		4822 116 83208	RES., 12kΩ ±5% 1/16W	NN05123610
R233		4822 116 83208	RES., 12kΩ ±5% 1/16W	NN05123610
R234		4822 051 30101	RES., 100Ω ±5% 1/16W	NN05101610
R235		4822 116 83208	RES., 12kΩ ±5% 1/16W	NN05123610
R236		4822 116 83208	RES., 12kΩ ±5% 1/16W	NN05123610
R238		4822 051 30101	RES., 100Ω ±5% 1/16W	NN05101610
R239		4822 051 30101	RES., 100Ω ±5% 1/16W	NN05101610
R240		4822 051 30101	RES., 100Ω ±5% 1/16W	NN05101610
R241		4822 051 30222	RES., 2.2kΩ ±5% 1/16W	NN05222610
R242		4822 051 30101	RES., 100Ω ±5% 1/16W	NN05101610
R243		4822 116 82487	RES., 0Ω 1/16W	NN05000610
R251		4822 051 30102	RES., 1kΩ ±5% 1/16W	NN05102610
R253		4822 051 30103	RES., 10kΩ ±5% 1/16W	NN05103610
R254		4822 116 82487	RES., 0Ω 1/16W	NN05000610
R255		4822 116 83207	RES., 1.2kΩ ±5% 1/16W	NN05122610
R257		4822 051 30103	RES., 10kΩ ±5% 1/16W	NN05103610
R258		4822 116 82487	RES., 0Ω 1/16W	NN05000610
R259		4822 051 30102	RES., 1kΩ ±5% 1/16W	NN05102610
R260		4822 051 30102	RES., 1kΩ ±5% 1/16W	NN05102610
R261		4822 051 30102	RES., 1kΩ ±5% 1/16W	NN05102610
R263		4822 051 30103	RES., 10kΩ ±5% 1/16W	NN05103610
R264		4822 116 82487	RES., 0Ω 1/16W	NN05000610
R265		4822 051 30102	RES., 1kΩ ±5% 1/16W	NN05102610
R267		4822 116 82487	RES., 0Ω 1/16W	NN05000610
R268		4822 116 82487	RES., 0Ω 1/16W	NN05000610
R405		4822 051 30103	RES., 10kΩ ±5% 1/16W	NN05103610
R409		4822 051 30103	RES., 10kΩ ±5% 1/16W	NN05103610
R410		4822 051 30103	RES., 10kΩ ±5% 1/16W	NN05103610
R451		4822 051 30103	RES., 10kΩ ±5% 1/16W	NN05103610
R452		4822 051 30103	RES., 10kΩ ±5% 1/16W	NN05103610
R453		4822 051 30273	RES., 27kΩ ±5% 1/16W	NN05273610
R454		4822 051 30273	RES., 27kΩ ±5% 1/16W	NN05273610
R455		4822 051 30682	RES., 6.8kΩ ±5% 1/16W	NN05682610
R456		4822 051 30682	RES., 6.8kΩ ±5% 1/16W	NN05682610
R457		4822 051 30154	RES.,150kΩ ±5% 1/16W	NN05154610
R458		4822 051 30154	RES.,150kΩ ±5% 1/16W	NN05154610
R459		4822 051 30223	RES., 22kΩ ±5% 1/16W	NN05223610
R460		4822 051 30223	RES., 22kΩ ±5% 1/16W	NN05223610
R461 ∫ R464		4822 051 30101	RES., 100Ω ±5% 1/16W	NN05101610
R465		4822 116 83339	RES., 56Ω ±5% 1/16W	NN05560610
R466		4822 116 83339	RES., 56Ω ±5% 1/16W	NN05560610
			PD04-SEMICONDUCTORS	
D221		4822 130 83715	CHIP DIODE, 1SS301 DAN202U UMT	HZ21005000
Q201		4822 209 33992	IC, TDA1302T HF AMPAND LASER CONT	HC10136490
Q221		4822 209 91174	IC, SAA7372GP SERVO IC	HC10132490
Q251		4822 209 16372	IC, TDA7073AT SOP DUAL BTL DRIVER	HC10165490

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
Q252		4822 209 16372	IC, TDA7073AT SOP DUAL BTL DRIVER	HC10165490
Q401		4822 209 15591	IC, AK4311A 1BIT DAC	HC10020480
Q451		4822 209 83357	IC, NJM4560M	HC10029090
			PD04-MISCELLANEOUS	
F451		4822 156 21729	FERRITE BEAD BK2125HM102	FN31010020
F452		4822 156 21729	FERRITE BEAD BK2125HM102	FN31010020
L221		4822 157 53872	CHIP INDUCTANCE, NL322522-100K	LU12103010
L401		4822 157 53872	CHIP INDUCTANCE, NL322522-100K	LU12103010
L451		4822 157 11276	3LINE COMN COIL ZCYS51R5-M3PAT	FN21000040
X221		4822 242 10883	CRYSTAL, CM309S 16.9344MHz	JX16002360
			PD54-OPT OUT CIRCUIT BOARD .	
			PD54-CAPACITORS	
CD51		4822 126 10513	CER., 47pF ±5%	DA15470110
CD52		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
CD53		4822 124 23056	ELECT, 47µF 16V	EJ47601610
			PD54-RESISTOR	
RB02			RES., 100Ω ±5% 1/6W	GD05101160
			PD54-MISCELLANEOU	
JD51		4822 267 31369	OPT. CONNECTOR, GP1F32T OPTICAL OUTPUT	YJ15000090
			PG04-MOTOR VR HEAD PHONE AMP CIRCUIT BOARD	
			PG04-CAPACITORS	
CG05		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
C751 ∫ C754		4822 124 23057	ELECT, 4.7µF 50V	EJ47505010
C755		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
C756		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
C761		4822 122 40586	CER., 0.01µF ±20% 25V	DA17103110
C762		4822 122 40586	CER., 0.01µF ±20% 25V	DA17103110
			PG04-CAPACITORS (COMMON)	
C***			ELECTROLYTIC CAPACITOR ±20% :C757 C758	
C***			PLASTIC FILM CAPACITOR ±5% 50V : CG0-CG04	
			PG04-RESISTORS	
RG07		4822 101 11876	VAR., 100K B X2 WITH TAP MOTOR VOLUM	RY01040380
▲ R761		4822 113 90107	FUSIBLE, 4.7Ω ±5% 1/4W	NH05047140
			PG04-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : R751-R760 RG01-RG06	

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			PG04-SEMICONDUCTORS	
D751		4822 130 32362	DIODE, 30V 0.1A 1SS176 MA165 1SS254	HD20002000
D752		4822 130 32362	DIODE, 30V 0.1A 1SS176 MA165 1SS254	HD20002000
Q751		4822 209 83274	IC, NJM4560D-D	HC10021090
Q752		4822 130 42682	DIG. TRS., DTA144ES UN4113 47k 47k	BA10002000
			PG04-MISCELLANEOUS	
F751	U,/2	4822 526 10584	FERRITE CORE, ZBF503D-00TA	FC90090010
J751		4822 267 31792	JACK H.P., HSJ0917-012140 BLACK/GOLD	YJ01003360
L751		4822 280 20501	RELAY, MR62-24SR 24V	LY20240410
			PP04-AC OUTLET CIRCUIT BOARD [F ONLY]	
			PP04-MISCELLANEOU	
⚠ JP01	F	4822 267 31686	JACK, AC OUTLET 1P CCT1302-0202	YJ04001780
			PU04-U-COM CIRCUIT BOARD	
			PU04-CAPACITORS	
CU01		4822 126 10935	ELECT, 100µF 6.3V	EJ10700610
CU02		4822 124 23295	BIG ELECT, 0.022F BACK UP	EX22300510
CU03		4822 126 10935	ELECT, 100µF 6.3V	EJ10700610
CU04		4822 122 40586	CER., 0.01µF ±20% 25V	DA17103110
CU05		4822 126 12867	ELECT., 1000µF 6.3V	OA108006Q0
CU06		4822 122 31823	CER., 15pF ±5% CH 50V BLK	DD15150300
CU07		4822 122 31823	CER., 15pF ±5% CH 50V BLK	DD15150300
CU08		4822 122 40617	CER.,0.1µF +80%-20% 50V DC	DD38104010
CU09		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
CU10		4822 122 40617	CER.,0.1µF +80%-20 %50V DC	DD38104010
CU11		4822 126 10408	CER., 220pF ±10% 25V	DA16221110
CU12		4822 124 23057	ELECT, 4.7µF 50V	EJ47505010
CU13		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
CU15		4822 122 40617	CER.,0.1µF +80%-20% 50V DC	DD38104010
CU16		4822 122 40617	CER.,0.1µF +80%-20% 50V DC	DD38104010
			PU04-RESISTORS	
GU01		4822 111 92205	COMPO., 10kΩ X 4	BW05103250
RU03		4822 050 23308	RES., 3.3MΩ ±5% 1/6W	GD05335160
RU05		4822 050 23308	RES., 3.3MΩ ±5% 1/6W	GD05335160
RU08		4822 050 23308	RES., 3.3MΩ ±5% 1/6W	GD05335160
			PU04-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : RU01 RU02 RU04 RU06 RU09-RU18 (RU19 RU20 [K,U,/2]) RU21 RU22	
			PU04-SEMICONDUCTORS	
DU01 ʃ DU12		4822 130 32362	DIODE, 30V 0.1A 1SS176 MA165 1SS254	HD20002000
QU01		4822 209 16369	MICROPROCESSOR, TMP87CS71F-6713	HU281JT02F
QU02		4822 130 42715	TRS., 2SA608SP 2SA1048 2SA1309 A933S	HT10001000
QU03		4822 130 61892	TRS., 2SD2144S U OR V	HT421442A0
QU04 ʃ QU08		4822 130 42682	DIG. TRS., DTA144ES UN4113 47k 47k	BA10002000
QU09		4822 209 63468	IC, NJM082D	HC10066090
QU10		4822 130 42594	DIG. TRS., DTC144ES UN4213 47k 47k	BA20002000
			PU04-MISCELLANEOUS	
XU01		4822 242 72066	SERAMVIB., CST8.0MHz MT	FQ08004010
XU02		4822 242 72236	CRYSTAL, DT-38 32.768kHz	XO001001T2
			PU54-FTD TACT SW CIRCUIT BOARD	
			PU54-CAPACITORS	
CU51		4822 124 80087	ELECT, 220µF 6.3V	EJ22700610
CU52		4822 122 40586	CER., 0.01µF ±20% 25V	DA17103110
CU53		4822 122 40586	CER., 0.01µF ±20% 25V	DA17103110
CU54		4822 122 40586	CER., 0.01µF ±20% 25V	DA17103110
			PU54-RESISTOR	
GU51		4822 111 92205	COMPO., 10kΩ X 4	BW05103250
			PU54-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : RU51-RU60	
			PU54-MISCELLANEOUS	
QU51		4822 209 16157	PHOTO UNIT, PNA4655M00XB	HW10005020
SU51 ʃ SU61		4822 276 20508	PUSH SW., TACT	SP01011280
VU51		4822 135 00194	DISPLAY UNIT, 10-BT-196GK 10GRD 16SEG	HQ31004410
			PU74-TACT SW CIRCUIT BOARD	
			PU74-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : RU71-RU75	
			PU74-MISCELLANEOUS	
SU71 ʃ SU75		4822 276 20508	PUSH SW., TACT	SP01011280
			PU84-POWER SW CIRCUIT BOARD	
			PU74-MISCELLANEOU	
SU81		4822 276 20508	PUSH SW., TACT	SP01011280
			PV04-MAIN AMP FUNCTION SEL. CIRCUIT BOARD	
			PV04-CAPACITORS	
CD01 ʃ CD11		4822 122 40586 4822 122 40586	CER., 0.01µF ±20% 25V CER., 0.01µF ±20% 25V	DA17103110 DA17103110
CN06		4822 122 40617	CER.,0.1µF +80%-20% 50V DC	DD38104010
CV01 ʃ CV04		4822 126 10408	CER., 220pF ±10% 25V	DA16221110
CV09		4822 122 33639	CER., 1000pF ±10% 25V	DA16102110

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CV10		4822 122 33639	CER., 1000pF ±10% 25V	DA16102110
CV17		4822 122 40617	CER.,0.1µF +80%-20% 50V DC	DD38104010
CV18		4822 122 40617	CER.,0.1µF +80%-20% 50V DC	DD38104010
CV20		4822 122 40617	CER.,0.1µF +80%-20% 50V DC	DD38104010
CV22		4822 126 10364	CER., 100pF ±10% 25V	DA16101110
CV24		4822 126 10364	CER., 100pF ±10% 25V	DA16101110
C101		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
C102		4822 122 40617	CER.,0.1µF +80%-20% 50V DC	DD38104010
C302 ⟆ C307	/2	4822 122 31823	CER., 15pF ±5% CH 50V BLK	DD15150300
C310 ⟆ C314	/2	4822 126 10408	CER., 220pF ±10% 25V	DA16221110
C705		4822 122 40103	CER., 5pF ±0.25pF C CH 50V	DD10050300
C706		4822 122 40103	CER., 5pF ±0.25pF C CH 50V	DD10050300
C717		4822 122 40586	CER., 0.01µF ±20% 25V	DA17103110
C718		4822 122 40586	CER., 0.01µF ±20% 25V	DA17103110
C719		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
C720		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
C721	/2	4822 122 40586	CER., 0.01µF ±20% 25V	DA17103110
C722	/2	4822 122 40586	CER., 0.01µF ±20% 25V	DA17103110
C801		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
C802		4822 122 40589	CER., 0.047µF ±20% 50V	DA17473110
C803		4822 124 22695	ELECT., 2200µF 35V	OA22803520
C807		4822 124 22571	ELECT., 10µF ±20% 50V RA-2	OA10605020
⚠ C812		4822 126 12453	CER., 0.01µF +80%-20% 500	DK18103560
C813		4822 124 80582	ELECT., 4700µF 16V	OA47801620
C814		4822 124 80773	ELECT., 3300µF 6.3V	OA33800620
⚠ C816		4822 126 12453	CER., 0.01µF +80%-20% 500	DK18103560
⚠ C817		4822 126 12866	ELECT, 4700µF 50V	EB47805040
⚠ C818		4822 126 12866	ELECT, 4700µF 50V	EB47805040
C820		4822 122 40617	CER.,0.1µF +80%-20% 50V DC	DD38104010
C***			**PV04-CAPACITORS (COMMON)** HIGH DIELECTRIC CONSTANT CER. CAPACITOR ±10% 50V : C703 C704	
C***			ELECTROLYTIC CAPACITOR ±20% : (C301 C308 C309[/2]) C701-C710 C713-C716 C804 C805 C806 C808 C809 C810 C815 C819	
C***			PLASTIC FILM CAPACITOR ±5% 50V : C711 C712	
			PV04-RESISTORS	
⚠ R106		4822 116 83929	RES., 220Ω ±5% 1/4W	GG05221140
R711		4822 117 10002	RES., 2.2kΩ ±5% 1/2W	GG05222120
R712		4822 117 10002	RES., 2.2kΩ ±5% 1/2W	GG05222120
R713		4822 113 80363	RES., 0.22Ω ±10% 3W	GO10222030
R714		4822 113 80363	RES., 0.22Ω ±10% 3W	GO10222030
R715		4822 053 10109	RES., 10Ω ±5% 1W	GA05100010
R716		4822 053 10109	RES., 10Ω ±5% 1W	GA05100010
R718		4822 052 10101	RES., 100Ω ±5% 1/6W	GG05101160
R719		4822 052 10101	RES., 100Ω ±5% 1/6W	GG05101160
⚠ R801	F,K,/2	4822 116 60306	FUSIBLE, 1Ω ±5% 1/2W	NH05010120
⚠ R802	F,K,/2	4822 116 60306	FUSIBLE, 1Ω ±5% 1/2W	NH05010120
⚠ R807		4822 117 10002	RES., 2.2kΩ ±5% 1/2W	GG05222120
⚠ R810	F,K,/2	4822 116 60307	FUSIBLE, 1Ω ±5% 1/4W	NH05010140

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R***			**PV04-RESISTORS (COMMON)** CARBON FILM FIXED RES. ±5% 1/6W : R101-R105 R107 R108 (R301-R304[/2]) R701-R710 R721 R722 (R723 R724[/02]) R804-R806 R808 RD01-RD14 RN01-RN21 RN23 RN24 RN25 RV01-RV31	
			PV04-SEMICONDUCTORS	
DD01		4822 130 33759	ZENER DIODE,4.7V 04AZ4.7-Y RD4.7ES B2 MTZJT-77 4.7B	HD30471000
DD02		4822 130 80317	ZENER DIODE,5.1V 04AZ5.1-Y RD5.1ES B2 MTZJT-77 5.1B	HD30511000
DD03		4822 130 82609	ZENER DIODE, MTZJ2.0B	HD30201000
DN01		4822 130 80837	DIODE, HSS81TD 150V 150MA	HD20027010
DN02		4822 130 80837	DIODE, HSS81TD 150V 150MA	HD20027010
DN03		4822 130 82421	DIODE, 1D3 1A 200V	HD20002710
DN04		4822 130 82421	DIODE, 1D3 1A 200V	HD20002710
DN05		4822 130 82421	DIODE, 1D3 1A 200V	HD20002710
DN07		4822 130 32362	DIODE, 30V 0.1A 1SS176 MA165 1SS254	HD20002000
DN08		4822 130 32362	DIODE, 30V 0.1A 1SS176 MA165 1SS254	HD20002000
D101		4822 130 33759	ZENER DIODE,4.7V 04AZ4.7-Y RD4.7ES B2 MTZJT-77 4.7B	HD30471000
D102		4822 130 32362	DIODE, 30V 0.1A 1SS176 MA165 1SS254	HD20002000
D103		4822 130 32362	DIODE, 30V 0.1A 1SS176 MA165 1SS254	HD20002000
D104		4822 130 32362	DIODE, 30V 0.1A 1SS176 MA165 1SS254	HD20002000
D105	F	4822 130 32362	DIODE, 30V 0.1A 1SS176 MA165 1SS254	HD20002000
D301	/2	4822 130 32362	DIODE, 30V 0.1A 1SS176 MA165 1SS254	HD20002000
⚠ D801 ⟆ ⚠ D804		4822 130 82421	DIODE, 1D3	HD20002710
⚠ D806		4822 130 82421	DIODE, 1D3	HD20002710
⚠ D807		4822 130 82421	DIODE, 1D3	HD20002710
⚠ D808		4822 130 33057	DIODE, S2VB20	HE20011290
⚠ D809		4822 130 82421	DIODE, 1D3	HD20002710
D810		4822 130 80838	ZENER DIODE, 18V 04AZ18-Z RD18ES B2 MTZJT-77 18C	HD31801000
⚠ D811		4822 130 31007	DIODE, S4VB20	HE20015290
QD01		4822 209 30193	IC, LB1641 MOTOR VOLUME DRIVE	HC10279030
QD02		4822 209 30193	IC, LB1641 MOTOR DRIVER TRAY	HC10279030
QD03		4822 209 30193	IC, LB1641 MOTOR DRIVER DOOR	HC10279030
QD04		4822 130 61227	DIG. TRS., DTA114ES UN4111 10k 10k	BA10001000
QN01		4822 130 43233	TRS., 2SC2240 GR OR BL	HT322402A0
QN02		4822 130 43233	TRS., 2SC2240 GR OR BL	HT322402A0
QN03		4822 130 42949	TRS., 2SA970 GR OR BL	HT109702A0
QN04		4822 209 83312	IC, TA7317P	HC10042050
QN05		4822 130 61179	TRS., 2SD2037 E OR F 50V 1.8W	HT420372B0
QN06		4822 130 60588	DIG. TRS., DTC114ES UN4211 10k 10k	BA20001000
QV01		4822 209 32552	IC, LC78211 ANALOG SW.	HC10308030
QV02		4822 209 73064	IC, NJM2068D-D	HC10053090

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QV03		4822 130 41947	TRS., 2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000
QV04		4822 130 41947	TRS., 2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000
QV05		4822 130 60588	DIG. TRS., DTC114ES UN4211 10k 10k	BA20001000
QV06		4822 130 61227	DIG. TRS., DTA114ES UN4111 10k 10k	BA10001000
QV07		4822 130 61892	TRS., 2SD2144S U OR V	HT421442A0
QV08		4822 130 61892	TRS., 2SD2144S U OR V	HT421442A0
Q101		4822 130 61892	TRS., 2SD2144S U OR V	HT421442A0
Q102		4822 130 61892	TRS., 2SD2144S U OR V	HT421442A0
Q103		4822 130 60588	DIG. TRS., DTC114ES UN4211 10k 10k	BA20001000
Q104		4822 130 61227	DIG. TRS., DTA114ES UN4111 10k 10k	BA10001000
Q301	/2	4822 209 16175	IC, LC72720 RDS DECODER	HC10385030
Q302	/2	4822 130 60588	DIG. TRS., DTC114ES UN4211 10k 10k	BA20001000
Q303	/2	4822 130 61227	DIG. TRS., DTA114ES UN4111 10k 10k	BA10001000
Q304	/2	4822 130 41947	TRS., 2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000
⚠ Q701		4822 209 32132	IC, STK4162 MK2	HC10371030
⚠ Q801		4822 209 60826	IC, NJM7812FA +12V 1A	HC3891209F
⚠ Q802		4822 209 70385	IC, L78MR05 +5V 1A	HC31505030
⚠ Q803		4822 209 31925	IC, PQ05RA1	HC36905320
Q804		4822 209 63641	IC, NJM79M12FA -12V 0.5A	HC3951209F
			PV04-MISCELLANEOUS	
A101	F		VHF TUNER, TFCB2J4, TUNER UNIT WITH AM ST	AV01201130
A101	K,U		VHF TUNER, TFCB2U , TUNER UNIT	AV01201110
A101	/2	4822 210 10816	VHF TUNER, TFCB3E , TUNER UNIT	AV01201120
⚠ F801	U		FUSE, T400MA 250V TR5 NO.19374 TP	FS20040210
⚠ F802	U		FUSE, T400MA 250V TR5 NO.19374 TP	FS20040210
⚠ F803	U		FUSE, T2A 250V TR5 NO.1937 TP	FS20200210
JV01		4822 265 10748	TERMINAL, 6P RCA JACK	YT02060460
JV02		4822 267 41009	TERMINAL, 2P RCA JACK REMOTE IN/OUT	YT02020890
J101		4822 290 81632	TERMINAL, YKD31-0215A ANT	YT03030020
J701		4822 265 11274	TERMINAL, YKD21-0181 SPK	YT03040420
LN01		4822 280 70354	RELAY, VB 24MBU-510 5A 240VAC	LY20240310
L301 ~ L307	/2	4822 157 62911	CHOKE COIL,3.3µH LAL02TA3R3J	LC13323800
L701		4822 157 70022	AIR COIL, SPK CHOCK VERTI.	ML08010030
L702		4822 157 70022	AIR COIL, SPK CHOCK VERTI.	ML08010030
L703	/2	4822 157 70022	AIR COIL, SPK CHOCK VERTI.	ML08010030
L704	/2	4822 157 70022	AIR COIL, SPK CHOCK VERTI.	ML08010030
WV01		4822 265 11273	JUMPER LEAD, 23P	YU23300530
X301	/2	4822 242 10857	CRYSTAL, 4.332MHz LC72720	JX04003260